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FUNDAMENTALS OF ENVIRONMENTAL COMPLIANCE INSPECTIONS

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U.S. Environmental Protection Agency

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This "Fundamentals of Environmental Compliance" Text is designed for use with the Classroom Training Course that inspectors employed by the U.S. EPA must complete to satisfy the basic training requirements of EPA Order 3500.1 (Training and Development for Compliance Inspectors/Field Investigators).

The Text covers legal, technical, administrative, and communications aspects of performing inspection work under all statutes administered by EPA.

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BASIC TRAINING COURSE
FOR EPA INSPECTORS/FIELD INVESTIGATORS

FUNDAMENTALS OF ENVIRONMENTAL COMPLIANCE MONITORING INSPECTIONS

Compliance Policy and Planning Branch
Office of Enforcement and Compliance Monitoring
U.S. Environmental Protection Agency

2/89

RESERVATION

The policies and procedures set forth herein and the internal office procedures adopted pursuant hereto are intended solely for the guidance of United States Environmental Protection Agency personnel. These policies and procedures are not intended to be relied upon to create a right or benefit (substantive or procedural) enforceable at law by a party to litigation with the United States Environmental Protection Agency. The Agency reserves the right to take any action that is alleged to be at variance with these policies and procedures or that is not in compliance with internal office procedures.

PREFACE

This "Fundamentals of Environmental Compliance Inspections" text is designed for use with the classroom training course that inspectors employed by the U.S. Environmental Protection Agency (EPA) must complete to satisfy the basic training requirements of EPA Order 3500.1, Training and Development for Compliance Inspectors/Field Investigators. The terms "compliance inspector" and "field investigator" include all personnel who conduct field activities that may lead to or support enforcement actions.

The "Fundamentals" text covers legal, technical, administrative, and communications aspects of performing inspection work under all statutes administered by EPA. The related classroom course is designed to reinforce materials in the text through a combination of lectures, group participation exercises, and discussions. Inspectors must complete the basic inspector training course before leading or independently conducting an environmental compliance inspection.

The "Fundamentals" text and classroom course do not cover the specialized skills and information an inspector needs with respect to a specific environmental program such as water pollution control, hazardous substances, and the like. Each environmental program is responsible for developing and implementing inspector training programs that will enable inspectors to satisfy the program-specific training requirements before performing field work.

Comments and suggestions about the "Fundamentals" text are welcome and should be addressed to: Compliance Policy and Planning Branch (Mailcode LE-133), OECM/OCAPO, U.S. Environmental Protection Agency, 401 M Street, S.W., Washington, DC 20460.

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This text is the product of contributions from many individuals and offices throughout EPA, who shared their experience and knowledge generously. Although these contributors are far too numerous to acknowledge individually, some who have had sustained roles in developing the text deserve to be singled out for recognition.

EPA's Regional offices have contributed the core material used in this text. Members of the Environmental Services Divisions in the Regions have given of their long experience in environmental compliance inspections. Attorneys from the Office of Regional Counsel in several Regions have also contributed. Regions II, IV, V, VII, and X have been especially active in developing this text.

The course itself stems from a recommendation by Region V and the Environmental Services Divisions, later endorsed by the Agency-wide Work Group on Inspector Training and Development. The basic concepts of the course were developed by a work group chaired by Pat A. Alberico, Deputy Director of the Office of Compliance Analysis and Program Operations. This work group also assembled the fundamental materials and technical guidance that became the basis of this text. The members of the work group were: Ralph R. Bauer, Carol Finch, Thomas P. Gallagher, Bob Harp, Reed Park Haney, James Merrill, James R. Moore, Jim Prange, Anne Randolph, David A. Ullrich, Carroll Wills, and A.R. Winklhofer. The work group effort was supported by two contractors, American Management Systems, Inc., and Chelsea International Corporation.

This text was developed under the direction of Donna A. Fletcher, Program Analyst in the Compliance Policy and Planning Branch, Office of Compliance Analysis and Program Operations, Office of Enforcement and Compliance Monitoring. Professional support was provided by George Alderson, Rebecca Barclay, Lee Braem, Peter Rosenberg, and Cheryl Wasserman. Contractor support was provided by Technical Resources, Inc., with Joel A. Todd, Charles M. Knapp, and Shelli Rossman as principal staff. Especially helpful contributions were made by A.R. Winklhofer of Region V, Billy J. Fairless of Region VII, and William Schmidt and David Dabroski of Region X.

The major contributors to particular parts of the text were the following:

Administration: Special assistance was given by Paul Boys (Region X), William Gillespie (NEIC), Patricia Gore (OARM), Timothy McProuty (OARM), Edward Murphy (OARM), Donnell Nantkes (OGC), Joseph Nemargut (OARM), and Charles Smith (OARM).

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CHAPTER 1

INTRODUCTION TO ENVIRONMENTAL COMPLIANCE

Achieving compliance with environmental laws and regulations is crucial to the success of environmental programs. Without a high degree of compliance, the benefits envisioned by the nation's array of laws to enhance and protect environmental quality will not be realized. There is virtually unanimous public support for strong Federal, State, and local enforcement of environmental laws.

Since its beginning in 1970, EPA's enforcement authorities have increased steadily, both through strong enforcement provisions in newer environmental legislation and amendments that provide greater enforcement powers under the older laws. This steady growth in enforcement authority reflects a firm desire on the part of Congress -- and of the public Congress represents -- to see that the Agency has effective tools for assuring compliance with the nation's environmental laws.

Particularly valuable authorities under several of EPA's statutes enable the Agency to issue administrative orders compelling violators to come into compliance, clean up any contamination they caused, and/or to pay civil penalties. Under most of EPA's major statutes now, the Agency may litigate cases internally through an administrative litigation system presided over by EPA's own administrative law judges (or hearing officers); this administrative system provides a prompt mechanism for resolving violations. The Agency can also refer cases to the U.S. Department of Justice for civil or criminal prosecution in the U.S. Court system.

EPA and States under delegated or approved programs carry out comprehensive programs to foster high levels of compliance using three main approaches: promoting compliance by the regulated community as a whole; conducting compliance monitoring activities (including inspections) to detect violations; and taking firm but fair enforcement action against violators to correct violations and create a strong enforcement presence. Inspectors are a crucial link in this effort.

This chapter describes factors which motivate regulated industries to comply with environmental requirements and the role of enforcement in achieving compliance.

Motivation for Compliance

What motivates a person or corporation to comply with an environmental law? There may be several forces at work. Some of them, the "natural" motivating forces, occur without any help from EPA. These forces alone seldom achieve high compliance levels. But when other motivating forces are added by environmental agencies, high levels of compliance can be achieved.

Natural Motivivating Forces

These are inherent factors that influence a person to comply, whether that person is a private individual or a corporate employee or officer. These forces generally fall in three categories:

- Societal/Moral Factors. Among these are (1) a fundamental sense of social responsibility to obey the laws, and (2) a belief that protection of the environment is a civic and personal duty. Both of these examples reflect widely held values in the United States today.
- Short-Run Economic Factors. These include economic advantages of compliance that will be realized immediately, such as reduced insurance premiums (not significant to date) or reduced materials costs as a result of recycling. Some companies have publicized their anti-pollution programs as an effort to "make pollution pay."
- Long-Run Economic Factors. These involve economic advantages of compliance that will not be realized until future years, such as avoiding future liability caused by hazardous wastes seeping into a drinking water source, or avoiding bad publicity that could hurt a company's sales or its stock prices.

Natural Disincentives

Working against the above motivating factors are several disincentives, or factors favoring noncompliance. A few examples are:

- Concern for Individual Property Rights. Some people view environmental regulations as an intrusion on their right to enjoyment of their private property.
- Economic Advantages of Noncompliance. A company not only may save money by not installing the required pollution-control equipment; it may gain a competitive edge over competitors that did install the equipment.
- Fear of Change. There is a prevalent, unconscious belief that known and familiar practices are safe, while new and unfamiliar things are risky and possibly harmful.

Motivating Forces Added by Environmental Agencies

These are factors systematically added by environmental agencies to the natural motivating forces described above to help achieve fuller compliance. These added forces involve two broad approaches:

- Compliance Promotion. This involves all efforts to lead people to comply. Some compliance promotion efforts may focus on strengthening natural motivating factors, while others work to counteract natural disincentives.

  Among the many efforts in this field are: (1) training and technical assistance provided to many industries that must meet new environmental requirements, and (2) public information materials and television spot announcements to counteract misinformation about unleaded gasoline.

- Enforcement. Enforcement consists of actions intended to compel people to comply and to create fear of the consequences of noncompliance. Enforcement actions take place only after a violation has occurred. The EPA or an environmental agency is taking an enforcement response when it responds to a specific violation by invoking one of the various forms of sanction or punishment. As will be discussed below, enforcement also creates a deterrent effect that motivates people to comply. This effect depends upon a potential violator's fear that noncompliance will be detected and that harmful consequences will follow, such as economic harm or imprisonment. In a sense, much "voluntary" compliance is actually a result of this deterrent effect.

The Role of Enforcement in Achieving Compliance

Enforcement is a paradox. Specific enforcement actions are taken against relatively few violators at specific sites where inspections have revealed violations. But these actions are capable of fostering compliance by an entire industry at facilities all over the country. Enforcement casts a wide shadow of deterrence which dissuades people from violating the laws.

Enforcement is the essential driving force that makes environmental laws work. Without enforcement, these laws would be largely words on paper, because there are powerful disincentives working against compliance. Enforcement evens the scales by adding a powerful incentive in favor of compliance.

Enforcement stays the hand of the would-be violator and encourages the person who really wants to comply. It achieves these results chiefly through the fear of detection and the assurance of fairness. Both elements are highly pertinent to the work of the inspector.

- Fear of Detection. A facility manager fears being caught in noncompliance by an inspection and suffering the consequences. The manager may fear that the company will lose money through a penalty or fine, that bad publicity will harm the company's sales, or that company managers will have to serve a prison sentence. The manager may also fear a salary cut or loss of his or her job as a result of an enforcement action. Enforcement enhances these influences; lack of enforcement eliminates them.

- Assurance of Fairness. A manager who is willing to comply with the law wants an assurance that competitors will not be free to ignore the law and thereby keep their prices lower or accumulate more profit. If enforcement is applied fairly and consistently, it gives this assurance of fairness (or "equity") to the cooperative manager. Without enforcement, the manager who complies could be making an uncalled-for sacrifice at the expense of the company and its stockholders, a result that was not intended by the law.

To create these two elements of deterrence, environmental agencies strive to maintain a credible enforcement presence. Four principal elements are involved in creating deterrence for a credible enforcement presence:

- Credible likelihood of detection. The managers of a facility believe detection is likely if they know inspectors are active in visiting similar facilities.

- Serious consequences of detection. Facility managers believe detection will lead to serious consequences if they know that inspections of similar facilities have resulted in enforcement actions involving heavy penalties or jail sentences.

- Swift and sure response. When facility managers see that EPA or State response to detection of a violation is quick and inevitable, they know they cannot escape the consequences by giving excuses or gaining time through lengthy bargaining.

- Fair and consistent response. When facility managers see that EPA and State inspections and enforcement actions are fair and consistent, they perceive the assurance of fairness they need. Also, it tells them the enforcement process is not open to favoritism or bargaining for special treatment.

A credible enforcement presence gives facility managers a substantial incentive to comply. Many managers have concluded that it is good business strategy to comply with environmental regulations and take the credit for good community citizenship. Better that than fall into noncompliance and get a black eye through the unfavorable publicity that attaches to violations. And although this is considered by some as voluntary compliance, it owes much to enforcement, because the managers' decision to comply is influenced partly by the knowledge that noncompliance involves serious risks.

An effective enforcement program begins with individual inspections and the specific enforcement responses to violations detected by those inspections. If those inspections and enforcement responses are done well, their effect is multiplied many-fold, so that many regulated parties are deterred from violating the law.

CHAPTER 2

SUMMARY OF EPA STATUTES

There is no Federal, generic environmental statute. Rather, a series of laws has been enacted by Congress to address environmental issues as they have arisen and been recognized as requiring national legislative and regulatory action. The Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) was passed in 1946; the Clean Air Act (CAA) and the Federal Water Pollution Control Act (FWPCA, but now the Clean Water Act - CWA) were passed in the 1960s; the Safe Drinking Water Act (SDWA), the Toxic Substances Control Act (TSCA), and the Resource Conservation and Recovery Act (RCRA) were enacted in the 1970s; and the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) became law in 1980.

Initially, several different agencies were responsible for implementing environmental statutes. FIFRA was administered by the Department of Agriculture, the CAA by the Department of Health, Education, and Welfare, and the FWPCA by the Department of the Interior. The Environmental Protection Agency was created by Presidential executive order in December, 1970, and principal responsibility for administering FIFRA, the CAA, and the FWPCA was vested in EPA to provide focus to Federal regulatory efforts. Responsibility for administering the other acts cited above was vested directly in EPA by the Congress.

There are other statutes which apply to environmental matters which are administered by other governmental entities. For example, the transportation of hazardous waste is regulated principally by the Department of Transportation, surface mining by the Office of Surface Mining, fish and wildlife matters by the Fish and Wildlife Service, oil spills by the Coast Guard, and dredging or filling of wetlands by the Army Corps of Engineers. Where there is shared or correlated responsibility between EPA and these other agencies in carrying out their legislative mandates, memoranda of understanding and cooperative agreements of various kinds generally have been or are being developed to provide coordination and cooperation.

There are a number of aspects that environmental laws administered by EPA generally share. Some of them are:

- There generally are national standards regulating the handling, emission, discharge, and disposal of harmful substances.

- The statutes are applied either through general rules at the State or Federal level, through permits, or both.

- States are given implementing responsibility for most programs (EPA authorizes State program enforcement).

- There usually are specific entry and inspection provisions in addition to authority for information requests and demands, monitoring, testing, and reporting.

- EPA generally is given the authority to issue notices of violation and compliance orders.

- The Agency usually is able to seek injunctive relief through civil courts or impose it administratively.

- EPA usually can seek administrative penalties or civil or criminal remedies.

- The statutes generally provide emergency authority.

- The statutes generally enable EPA to eliminate, through assessment of financial penalties, any economic advantage gained by a non-complying source as a result of its non-compliance.

- Most statutes require their substantive requirements (although enforcement is different than for private facilities).

- States may take enforcement action under applicable State law, however EPA may also pursue Federal enforcement action.

Following are summaries of the major provisions of each of the laws administered by EPA. The summaries do not constitute interpretations of the various acts, but rather are intended for descriptive purposes only.

2A CLEAN AIR ACT

Purpose

The Clean Air Act is intended to foster the protection and enhancement of the nation's air quality, and to safeguard public health and welfare and the productive capacity of the population. The Act is divided into three titles.

- Title I deals with control of pollution from stationary sources;
- Title II deals with control of pollution from mobile sources; and
- Title III addresses general and administrative matters.

The Act requires EPA to promulgate national ambient air quality standards (NAAQS) for certain pollutants to protect the public health (primary NAAQS) and protect the public welfare (secondary NAAQS).

Each State is required to adopt a plan, called a State Implementation Plan (SIP), that limits emissions from air pollution sources to the degree necessary to achieve and maintain the NAAQS. The SIP provides emission limitations, schedules and timetables for compliance by stationary sources. The Act focuses on "major" stationary sources or major modifications of existing sources. Major sources are defined as sources which emit, or have the potential to emit, more than a prescribed amount of a designated pollutant.

States are also required to adopt measures to prevent significant deterioration of air quality (PSD) in "clean air areas." When a SIP is approved by the Administrator, it is enforceable by both the Federal and State governments.

In addition to the SIP regulatory scheme, the Act establishes two other major regulatory programs for stationary sources. The New Source Performance Standards (NSPS) program establishes stringent emissions limitations for "new" sources in designated industrial categories regardless of the State in which the source is located or the air quality associated with the area.

The second program, the National Emissions Standards for Hazardous Air Pollutants (NESHAP), regulates emissions of pollutants for which no NAAQS is applicable but which cause increases in mortality or serious illnesses.

Major Regulatory Provisions

- National Ambient Air Quality Standards/State Implementation Plans. For existing sources, Section 109 of the Act requires that EPA adopt and establish "National Ambient Air Quality Standards" for criteria pollutants (currently particulate matter, sulfur dioxide, carbon monoxide, ozone, nitrogen dioxide, and lead) to protect public health and welfare.

The human health-related standards are designated "primary" ambient air quality standards, and the welfare-related standards are designated "secondary" ambient air quality standards.

Section 110 of the Act requires each State to submit to EPA for approval a "State Implementation Plan" for "implementation, maintenance, and enforcement" of these standards in each air quality control region (or portion thereof) within the State. Each plan must include source-specific emission limitations, and such other measures necessary to insure attainment and maintenance of primary or secondary standards.

EPA has designated all areas of the country as either "attainment" or "non-attainment" for each of the criteria pollutants. SIPs must assure attainment of NAAQS by prescribed dates. SIPs must meet Federal requirements, but each State may choose its own mix of emission controls for sources to meet the NAAQS. Controls may include stationary and mobile source emission limits; transportation plans; pre-construction review of new sources; Non-Attainment Area (NAA) and Prevention of Significant Deterioration (PSD) permits for construction of new sources; monitoring; and inspection and testing of vehicles. Other measures may include emission charges, closing and relocation of plants, changes in operations, and ways to reduce vehicular traffic including taxes, staggered work hours, and mass transportation. The CAA prescribes that no SIP will be adopted without a public hearing, and sources affected by the SIP are entitled to participate.

- New Source Performance Standards (NSPS). For new or modified stationary sources of air pollution, the Act requires EPA to promulgate uniform Federal New Source Performance Standards (NSPS) for specific pollutants in industrial categories based upon adequately demonstrated control technology. Rather than tying control levels to National Ambient Air Quality Standards, Congress required EPA to base these uniform emission standards on strictly technological considerations.

  The owner or operator of a new or modified source must demonstrate compliance with an applicable new source performance standard within 180 days of initial start-up of the facility, and at other times as required by EPA.

  EPA has primary authority for enforcement of Federal New Source Performance Standards unless authority is delegated to States. In such cases, EPA and the States have concurrent enforcement authority.

- Prevention of Significant Deterioration (PSD). Part C of Title I, "Prevention of Significant Deterioration of Air Quality," applies in all areas which are attaining the National Ambient Air Quality Standards where a major source or modification is proposed to be constructed. Its purpose is to prevent the air quality in relatively clean areas from becoming significantly dirtier. A clean air area is one where the air quality is attaining the ambient primary or secondary standard. Designation is pollutant-specific so that an area can be non-attainment for one pollutant, but clean for another. It establishes three classifications of geographical areas for proposed emitters of sulfur dioxide and particulate matter.

  Class I -- only minor air quality degradation allowed;
  Class II -- moderate degradation allowed; and
  Class III -- substantial degradation allowed.

In no case would PSD allow air quality to deteriorate below secondary air quality standards. "Baseline" is the existing air quality for the area at the time the first PSD is applied for. "Increments" are the maximum amount of deterioration that can occur in an attainment area over baseline. Increments in Class I areas are smaller than for Class II, and Class II increments are smaller than for Class III areas.

For purposes of PSD, a major emitting source is one of 26 designated categories which emits or has the potential to emit 100 tons/year of the designated air pollutant. A source that is not within 26 designated categories is a major source if it emits more than 250 tons/year.

Any proposed major new source or major modification is subject to pre-construction review by EPA, by a State to whom the program is delegated or by a State which has adopted PSD requirements in its SIP, so that a permit for increases will not be exceeded. The permit describes the level of control to be applied and what portion of the increment may be made available to that source by the State (CAA, Part C). Where EPA has delegated such review, EPA and the State have concurrent enforcement authority.

- Non-Attainment Areas (NAA). Non-attainment areas are those which are not in compliance with national air quality standards. For a proposed source which will emit a criteria pollutant in an area where the standards are presently being exceeded for that pollutant, even more stringent pre-construction review requirements apply. This review is the primary responsibility of the State where the source is proposed to be constructed, with overview authority vested in EPA.

New construction of major sources or major modifications in an NAA is prohibited unless the SIP provides for the following:

- The new source will meet an emission limitation for the non-attainment pollutant which reflects the lowest achievable emission rate (LAER);

- All other sources within the State owned by the subject company are in compliance;

- The proposed emissions of the non-attainment pollutant are more than offset by enforceable reductions of emissions from existing sources in the non-attainment areas; and

- The emissions offsets will provide a positive net air quality benefit in the affected area.

The applying source in an NAA must, therefore, obtain a greater than 1:1 reduction of the pollutant or pollutants for which the area has been designated non-attainment. Emission offsets from existing sources may need to be obtained, especially if the new source will have emissions that would exceed the allowance for the NAA. In these situations, the source would need to obtain enforceable agreements from other sources in the NAA, or from its own plants in the NAA.

- National Emissions Standards for Hazardous Air Pollutants (NESHAPs). Section 112 of the CAA defines hazardous air pollutants as those for which no air quality standard is applicable but which are judged to increase mortality or serious irreversible or incapacitating illness. NESHAP standards are based on health effects with strong reliance on technological capabilities. They apply to both existing and new stationary sources. The NESHAP program can be delegated to any qualifying State (CAA, Section 112).

  The four hazardous pollutants currently regulated are asbestos, beryllium, mercury, and vinyl chloride. See 40 CFR Part 61.

  Under NESHAPs, no person may construct any new source unless EPA determines that the source will not cause violations of the standard. For existing sources, a standard does not apply until 90 days after its effective date. However, EPA may grant a waiver permitting an existing source up to two (2) years after the effective date to comply with the standard, if EPA finds that time is necessary for installation of controls and that steps will be taken to prevent endangerment of human health in the interim.

- Motor Vehicle Emission Control. Title II of the Clean Air Act established the Federal motor vehicle emission control program which is designed to regulate and control the emissions from all classes of motor vehicles and engines throughout their useful life. Under Section 202 of the Act, EPA establishes standards for various pollutants by model year for classes of motorcycles, passenger vehicles, trucks and truck engines (as determined by gross weight) which must be met for a prescribed "useful life" period. The Agency then exercises its oversight and enforcement authorities to ensure that new vehicles and engines are designed and built to comply with the applicable standards (Section 206, new vehicle testing) and continue to do so throughout their useful life (Section 207, recalls and warranties). The Agency also ensures that other regulated parties are in appropriate compliance so as not to degrade such emissions performance.

  The Administrator has authority under Section 211 to regulate fuels and fuel additives which would contribute to air pollution or impair motor vehicle emissions performance.

  In-use compliance tests are to be administered through State or local emissions inspection and maintenance (I/M) programs. Since Title I of the Act requires I/M for any area that could not meet the NAAQS for CO or ozone by 1987, there are a number of States and local areas that are administering these tests.

- Prohibited Acts for Motor Vehicle Manufacturing and Sale. Section 203(a)(1) prohibits the sale or introduction into commerce of any vehicle which is not covered by a certificate of conformity. Section 203(a)(1) further prohibits manufacturers, importers-for-resale and individuals from importing nonconforming vehicles, whether for resale or personal use, except as provided by EPA regulations. Section 203(a)(2) prohibits any person to fail or refuse to permit access to or copying of records or to fail to make reports or provide information as required under Title II or for any person to fail or refuse to permit entry, testing, or inspection authorized under Title II.

Section 203(a)(3)(A) prohibits manufacturers and dealers from removing or rendering inoperative emission control devices either prior to or after sale and delivery to the vehicle purchaser. Section 203(a)(3)(B) prohibits persons engaged in vehicle repair, servicing, selling, leasing or trading motor vehicles and fleet operators from "removing or rendering inoperative" as well. Section 203(a) prohibits anyone from "causing" tampering. The Act does not at this time authorize EPA to enforce these prohibitions against individual vehicle owners. Since use of leaded fuel in vehicles with catalytic converters requiring unleaded fuel does render the emission control system inoperative by poisoning the catalyst, "fuel switching," as well as "tampering" is deemed to be prohibited under this section.

- Regulation of Fuels. Under Section 211(c)(1)(A), EPA may regulate any fuel or fuel additive for use in motor vehicles if the resulting emission would cause or contribute to air pollution which may reasonably be anticipated to endanger public health or welfare, or if the emission products would significantly impair any emission control device or system in general use. EPA has issued regulations for the lead content in both leaded and unleaded gasoline and prohibited fuels switching by certain parties as well under this authority.

  Under Section 211(a), (b), and (e), EPA has established regulations requiring the registration of new fuels and fuel additives. Section 211(f)(1) prohibits any manufacturer of fuel or fuel additive from first introducing into commerce, or increasing the concentration in use of, any fuel or additive for general use in post-1974 model year automobiles which is not "substantially similar" to fuels or additives used in certifying such vehicles. This prohibition may be waived under Section 211(f)(4) if the manufacturer establishes that the fuel or additive and its emission products will not cause or contribute to the failure of any emission control system to meet emission standards over its useful life. A number of fuels, such as ethanol and other alcohol blends, have been granted such waivers under this provision.

Enforcement Authorities

The rest of CAA is discussed as bullets under this paragraph. However, they do not all apply to Section 113. Section 113 of the Clean Air Act provides the basic enforcement mechanisms for stationary source violations.

- Administrative Orders. Administrative orders under Section 113(a)(1) are generally only available for requiring new or existing sources to comply within a period of less than 30 days from receipt of the order (e.g., by prompt alteration or cessation of operations). Delayed compliance orders under Section 113(d)(1) are available only for an existing source which can comply with State Implementation Plan requirements by July 1, 1979, or three years after the statutory attainment date, whichever is later. (The statutory attainment date has not yet been passed in all instances.) Where available, these orders are highly sought after by violating sources since, once effective, they insulate a source from Federal and State civil and criminal liability as well as citizen suits under Section 304, 42 U.S.C. 7604, as long as the source remains in compliance with the requirements of the order.

  Delayed compliance orders can be issued by either EPA or the States. If issued by a State, a delayed compliance order for a major source must be approved by EPA in order to be effective. Upon approval by EPA, the order becomes part of the SIP, and thus enforceable by EPA and the State.

Delayed compliance orders are subject to the following criteria:

- The source must be currently unable to comply;
- Notice and opportunity for a public hearing must be provided;
- The order must include a schedule for compliance;
- The order must require compliance with applicable interim controls;
- The order must include reasonable requirements for monitoring and reporting;
- The order must require final compliance as expeditiously as practicable, but no later than July 1, 1979, or three years after the date specified in the SIP, whichever is later; and
- If the order is issued to a "major source," it must notify the source of its possible liability for non-compliance penalties under Section 120.

- Civil Action. Section 113(b) provides that EPA shall commence a civil action against any person who is the owner or operator of a major stationary source, for a permanent or temporary injunction, or assess and recover a civil penalty of not more than $25,000 per day of violation, or both, for the below violations. EPA may in the case of any other person, commence a similar civil action. Violations subject to the section are:
  - Violations of administrative orders issued under Section 113(a);
  - Violations of SIP requirements (including the requirements of delayed compliance orders issued and/or approved under Section 113(d)(1));
  - Violations of Federal NSPS;
  - Violations of NESHAPs;
  - Violations of coal conversion requirements imposed under authority of former Section 119(g) or the current Section 113(d)(5):
  - Violations of Section 324 relating to the cost of certain vapor recovery;
  - Violations of current Section 119 relating to smelter orders;
  - Violations of any ozone regulation under Part B of Title I;
  - Failure or refusal to comply with Section 114 information requests; and
  - Illegal construction or modification of any major stationary source in a non-attainment area or violation of PSD regulations.

Sections 205 and 211 provide civil enforcement authority for violations of the motor vehicle emission control program. Section 205 authorizes penalties for violations of Section 203(a)(1)(2) and (4) of not more than $10,000. Any person, manufacturer or dealer, who violates Section 203(a)(3) is subject to a penalty of not more than $2,500. Section 211(d) authorizes civil penalties of $10,000 for violations of fuel regulation and registration requirements. Title II enforcement, unlike other air programs, is run out of EPA Headquarters or Ann Arbor, MI.

- Criminal Prosecution. Criminal prosecutions may be initiated against any person who "knowingly":

  - Violates a SIP requirement;
  - Violates any administrative orders issued under Section 113(a) or (d) or Section 119 (relating to nonferrous smelters);
  - Violates Federal New Source Performance Standards or National Emissions Standards for Hazardous Pollutants;
  - Violates any coal conversion requirements imposed under the authority of former Section 119(g);
  - Fails to pay a non-compliance penalty under Section 120; or
  - Violates any requirement of Title I, Part B of the Act, relating to ozone protection.

  Such knowing violations are punishable by fines of up to $25,000 per day of violation, or imprisonment for up to one year, or both. Second convictions are punishable by fines of up to $50,000 per day of violation, or imprisonment for up to two years or both. For purposes of criminal violations the term "person" also includes any responsible corporate officer.

- Administratively Assessed Non-compliance Penalties. Regulations promulgated pursuant to Section 120 impose administratively assessed "non-compliance penalties" for non-compliance with the following:

  - Emission limitations, emission standards, or compliance schedules established under SIPs;
  - Federal NSPS or NESHAPs;
  - Extensions, orders, suspensions, or Federal or State consent decrees issued to enforce SIPs, NSPS, or NESHAPs; and
  - Interim emission control requirements under administrative orders for non-ferrous smelters.

  These administrative penalties are in addition to any civil or criminal penalties that may be imposed judicially under the Act or under State or local law. They are designed to remove any economic benefit inuring to the violator as a result of the violator's non-compliance.

Other Enforcement Mechanisms

- Citizen Suits. Section 304 of the Act allows citizens to commence civil actions against sources violating emission limitations or standards, or Federal or State administrative orders. In addition, a citizen may sue EPA when it fails to perform a non-discretionary act. Finally, a citizen may sue to prohibit construction of new or modified sources without the permit required under Part C of Title I (Prevention of Significant Deterioration), or Part D of Title I (relating to non-attainment areas).

- Emergency Provisions. Section 303 of the Act permits EPA to commence a civil action to restrain any person from causing or contributing to an imminent and substantial endangerment to human health by the emission of air pollutants. In addition, if prompt protection of human health cannot be assured by commencement of such civil actions, EPA may issue administrative orders to accomplish the same result in the interim until a civil action is commenced within that 24 hour period, in which case the effective period is extended to 48 hours. Violations of any such order are punishable by fines of up to $5,000 per day of violation.

- Ineligibility from Federal Procurement. Under Section 306, no Federal agency may enter into a contract with a person convicted of an offense under Section 113(c)(1) for the procurement of any goods, materials, or services at a facility which gave rise to the conviction. In addition, Executive Order 11738 and EPA regulations (40 CFR Part 15), which were issued pursuant to this section, establish procedures whereby violating facilities may be rendered potentially ineligible for Federal contracts, grants or loans, on the basis of any administrative or judicial determination of non-compliance.

- Information Requests. Section 114 of the Act contains broad inspection and right of entry authority permitting EPA to request monitoring reports and other data and to enter into premises of an emission source. Section 208 requires motor vehicle manufacturers to provide information on compliance with Title II requirements.

2B CLEAN WATER ACT

Purpose

The purpose of the Clean Water Act is to assure that the nation's waters are safe to the public and support fish and other stream life. These objectives, contained in the statute and commonly known as the "fishable and swimmable" provisions of the Act, were to be achieved by 1985.

Through the 1950s and 1960s, water pollution control enforcement emphasis was centered primarily on the States' ability to set ambient water quality standards, develop plans to achieve those standards, and enforce the plans.

In 1972, the Federal Water Pollution Control Act (FWPCA) was significantly amended. Those changes initiated a new regulatory and enforcement approach to cleaning up the nation's waters, combining the setting of State water quality standards based on desired water use objectives (such as cold water fishery) with establishment of individual facility effluent limitations. The amendments called for compliance by all point-source dischargers with technology-based standards implemented through discharge permits. Also, they added Section 404 which established a new permit program to control the discharge of dredged material into water of the United States, including wetlands.

A strong Federal enforcement program was created, and substantial monies were made available ($56 billion over the decade between 1972 and 1982) for construction of municipal sewage treatment plants (known as POTWs -- publicly owned treatment works) to assist municipalities in coming into compliance. The Federal Water Pollution Control Act was amended several times in 1977 to, among other things, enhance the State role in management of the construction grants program and to exempt from the Section 404 permit requirement certain activities believed to have minimal impacts; in 1981 by lowering the Federal share of the cost of the construction grant program from 75% to 55%; and again in 1987 to add toxic and non-point control provisions, and to provide for the establishment of State Revolving Loan Programs (SRF). The Act is commonly known as the Clean Water Act.

Major Regulatory Provisions

- State Water Quality Standards and Water Quality Management Plans. Section 303 of the CWA authorized the States to establish ambient water quality standards and water quality management plans. If implementation of national technology standards are not sufficient to attain desired stream water quality, States are required to determine maximum daily allowable pollutant loads for those waters. The States must then develop effluent limits and compliance schedules for point source dischargers (wasteload allocation plans) to assure the attainment of the desired water quality.

- The National Pollutant Discharge Elimination System (NPDES). This program was established by Section 402 of the CWA and, under it, EPA and approved States have issued more than 60,000 NPDES permits. Permits are required for all point sources from which pollutants are discharged to navigable waters. An NPDES permit is required for any direct discharge from new or existing sources. Indirect discharges through POTWs are regulated under a separate program.

  The NPDES permit is issued by EPA or an EPA-authorized State to include those applicable provisions described previously. It is the specific document that provides the reference point for enforcing Federal and State effluent limitations for any particular industrial facility, including:

  - Limits based on effluent guidelines;
  - New Source Performance Standards;
  - Toxic effluent standards; and
  - Limits based on State water quality standards under Section 303 of the CWA, if any are applicable.

  Permit elements include the amount of pollutants permitted to be discharged, expressed in terms of average monthly and maximum daily level, or concentrations; compliance schedules, if applicable standards cannot be met now; and monitoring, testing and reporting requirements.

  In 1979 and 1980, the permit program was revised and one of the new features was the use of Best Management Practices (BMPs) on a case-by-case basis to minimize the introduction of toxic and hazardous substances into surface waters. BMPs are industry practices used to reduce secondary pollution (e.g., raw material storage piles shall be covered and protected against rain and runoff). BMPs do not have numerical limits and, therefore, are different from effluent limits.

- Effluent Guidelines. Section 304 of the CWA authorizes EPA to set restrictions on the amount of pollutants discharged at industrial plant outfalls. Amounts are usually expressed as weight per volume of discharge (e.g., 30 mg/liter) or as weight per unit of product (e.g., 0.5 lb/1,000 lb product manufactured). The standards are different for each industry. Effluent guidelines are applied to individual plants through the NPDES permit program. There are three levels of technology for existing industrial sources:

  - Best Practicable Control Technology (BPT),
  - Best Conventional Technology (BCT), and
  - Best Available Technology Economically Achievable (BAT).

BPT was previously intended to be in place by industry in 1977, and BAT in 1983. Amendments to the CWA modified this schedule whereby a very limited BPT extension was granted to 1979, and the BAT standard is to be met "as expeditiously as practicable," but no later than March 31, 1989. The amendments divided all pollutants into three categories:

- "Conventional" pollutants, which were to meet BCT limitations by July 1984;
- "Toxic" pollutants, which were to achieve BAT criteria by July 1987; and
- Other pollutants, which are to comply with limitations no later than three years after limitations are established, but not later than March 1989.

- New Source Performance Standards. New Source Performance Standards (NSPS) are closely related to BAT for existing sources, but are not quite the same. NSPS are different for each industrial category. These standards must be achieved when the new industrial source begins to discharge. NSPS permits will be effective for a period of 10 years, as compared to 5 years or less for the BPT and BAT-type permits. This 10-year protection insulates against change in BCT or BAT requirements, but does not hold against Section 307(a) toxic pollutant standards or against "surrogate" pollutants that are used to control hazardous or toxic pollutants.

  A permit application must be made. Adequate information must be submitted, including basic facility descriptions; SIC codes; regulated activities; lists of current environmental permits; descriptions of all outfalls; drawings; flows; treatment; production; compliance schedules; effluent characteristics; use of toxins; potential discharges; and bio-assay toxicity tests performed.

  Applicants must conduct analytical testing for pollutants for BOD, COD, TOC, TSS, ammonia, temperature and pH. The applicant, if included within any of the 34 "primary industry" categories, must sample for all toxic metals, cyanide, and phenols listed in the application, and for specified organic toxic pollutant fractions.

  The applicant must list hazardous substances believed to be present at the facility. Testing is not required, but analytical results must be provided, if available.

- Municipal and Industrial Stormwater Permits. The 1987 amendments added Section 402(p), which requires EPA to establish the stormwater permit program. Cities with a population greater than 250,000 must file permit applications by February 1990, and cities with a population greater than 100,000, but less than 250,000 must file applications by February 1991. Industries with stormwater discharges must file permit applications by February 1990. The permits issued must reduce pollutants to the maximum extent practicable for municipalities, or to technology-based requirements for industry.

  Immediate corrective actions must be taken when a discharge contributes to a violation of a water quality standard, or is a significant contributor of pollutants to the nation's waters.

- Permittee Reporting. The Discharge Monitoring Report (DMR), submitted regularly by the permittee, provides a summary of the discharger's records on a monthly or quarterly basis for effluent discharge levels. Non-compliance reports must be submitted quarterly on the cause of non-complying discharges, period of non-compliance, expected return to compliance, and plans to minimize or eliminate recurrence of incident.

  EPA shall also be notified within 24 hours of non-compliance involving discharge of toxic pollutants, threat to drinking water, or injury to human health.

  Non-compliance due to intentional diversion of waste ("by-pass") shall be reported promptly to the permitting agency, and may be permissible if essential to prevent loss of life or serious property damage.

  Temporary non-compliance due to factors beyond the reasonable control of the permittee ("upset") shall be promptly reported to the Agency.

- Pretreatment Standards for Indirect Discharges to Publicly-Owned Treatment Works. New and existing industrial users who discharge to POTWs are subject to general and categorical pretreatment standards. The categorical standards are primarily directed toward control of toxic pollutants in specific industries and to prevent interference with effective sewage treatment by the POTW.

  General Pretreatment Standards prohibit interference, pass-through, fire or explosion hazards, corrosivity, solid or viscous obstructions, "slug" discharges, and heat sufficient to inhibit biological activity at POTWs.

  Categorical Standards are to be expressed as concentration limits or mass weight per unit of production. Sources must also be in compliance 3 years after promulgation of the standards. Variances can be obtained for fundamentally different factors, or if industrial pollutants are consistently being removed by the POTW.

  Users must provide to the appropriate agency (EPA, State or POTWs having approved pretreatment programs) basic information, SIC code, average and maximum daily discharge, characteristics of pollutants, applicable standards, and certification whether standards are being met and, if not, what pretreatment is necessary, and a compliance schedule. Reports and information are to be submitted at 6-month intervals.

  POTWs of a certain size or character are required to develop and implement local pretreatment programs to control the discharges of local industrial facilities into the treatment works. These programs are to be designed to prevent interference, pass-throughs, or improper sludge make-up.

- Non-Point Source Pollution Control. Sections 208 and 319 of the CWA provide for control of non-point source pollution, and direct States to establish planning bodies to formulate area-wide pollution control plans and prepare an assessment which identifies waters which are unlikely to comply with the State standards without additional non-point source controls. NPDES permits cannot be issued where the permit may conflict with an approved Section 208 plan.

- Dredge or Fill Discharge Permit Program. Section 404 of the Clean Water Act regulates discharges of dredged or fill material into waters of the United States, including wetlands. Wetlands are mostly semi-aquatic lands that are either inundated or saturated by water for varying periods of time during the growing season (The regulatory definition of "wetlands" is at 40 CFR Part 230.3(t)).

  The Section 404 program is co-administered by the U.S. Army Corps of Engineers and EPA. The Corps bears the day-to-day administrative responsibilities for the program, which includes reviewing permit applications and determining whether to issue or deny applications for dredge or fill permits. EPA also has extensive authority for determining how the 404 program is implemented. It develops, in conjunction with the Corps, the Section 404(b)(1) Guidelines, the environmental standards that the Corps must apply when evaluating permit applications. Under Section 404(c), EPA has discretionary authority to veto or restrict discharges if it determines that the proposed discharge will have an "unacceptable adverse effect" on stated resource areas. EPA's other Section 404 responsibilities include: determining and defining the geographic scope of Section 404; reviewing permit applications and providing recommendations to the Corps regarding permit issuance, restriction, or denial; defining activities that may be exempt from permitting under Section 404(f); and approving and overseeing State assumption of the 404 program; thus, unlike most other EPA programs, the Federal government continues to be responsible for most 404 enforcement.

  EPA and the Corps also share 404 enforcement responsibility. Pursuant to Section 309 of the CWA, EPA has explicit authority to act against persons discharging dredged or fill material without a Corps- or State-issued 404 permit, and to enforce against violations of State-issued permits. Section 404(s) gives the Corps explicit authority to enforce against violations of Corps-issued permits. Also, EPA has implicit authority to enforce against violations of Corps-issued permits. Given the Corps' much larger field presence and since it is the permitting authority, the EPA Regions have in practice utilized their limited resources to identify and take action against unauthorized discharges, with the Corps taking the lead on enforcing against noncompliance with the terms of Corps-issued permits.

  The geographic scope of the Section 404 program extends to all "waters of the United States" (the regulatory definition of "waters of the United States" is at 40 CFR Part 230.3(s)). This phrase includes waters that are currently used, were used in the past, or may be susceptible to use in interstate or foreign commerce, such as: all waters subject to tidal influence; interstate waters and wetlands; isolated waters and wetlands, if their use, degradation, or destruction could affect interstate commerce; tributaries to any such waters or wetlands; and wetlands adjacent to any such waters.

  Section 404 applies to "discharges" of dredged or fill material, which are commonly associated with projects such as channel construction and maintenance, port development, fills to create development sites, and water resource projects. Other kinds of activities, such as channelization and landclearing, are regulated as Section 404 discharges if they involve more than very minor and incidental discharge of soil into waters of the United States. Many other activities that can adversely affect and even destroy wetlands, such as drainage and groundwater pumping, are often conducted without discharging dredged or fill material into waters of the United States and in those circumstances are not regulated under Section 404.

Most Section 404 permits are issued on an individual or case-by-case basis. However, the Corps can forego review of individual activities by issuing general permits on a state, regional, or national basis. General permits can be issued for categories of activities that are similar in nature and that will cause only minimal environmental effects individually and cumulatively. Such permits may be modified or revoked if the permitted activities are found to have an adverse environmental impact. Moreover, on a case-by-case basis, the Corps may invoke discretionary authority and require a discharger who would otherwise be covered by a general permit to apply for an individual permit.

- Discharge of Oil and Hazardous Substances. Section 311 of the CWA prohibits discharges of oil or hazardous substances in quantities that may be harmful to waters of the United States. The appropriate Federal agency must be immediately notified of any spill of a "reportable quantity." Section 311 provides for cleanup of spills and requires plans for preparation of Spill Prevention, Control and Countermeasures (SPCC plans).

  Over 300 substances have been defined as hazardous under Section 311, and each of these substances has a "reportable quantity" (40 CFR Parts 116 and 117, 1980).

  A person or corporation who properly notifies the Agency of the discharge of a reportable quantity of oil or hazardous substance is immune from criminal prosecution, but is liable for civil penalties. Additionally, those who cause the spill are liable for the costs of cleanup and removal. If the Federal government must clean up the spill, the discharger of the spill is liable for cleanup costs. There are maximum liability limits, depending upon the type of facility and spill. These limits do not apply if the discharge resulted from willful negligence or misconduct of the owner.

  Certain discharges of oil and hazardous material that flow from a point source may be excluded from Section 311 liability if, during preparation of the NPDES permit covering that facility, conditions are added to the permit to avoid the occurrence of a spill.

Enforcement Authorities

The Clean Water Act authorizes States to be the first-line enforcers, although EPA retains independent authority to take enforcement action in both authorized and unauthorized States.

- Administrative Compliance Orders. Section 309(a) allows EPA to order persons violating the Act to comply with the Act and to set a reasonable schedule for doing so. There is no required hearing process associated with these orders.

- Administrative Penalties. Section 309(g) allows EPA separately to assess administrative penalties (after consultation with the State). The administrative penalties are of two classes:

  - Class I, with an informal hearing process, which can carry penalties up to $25,000; and

  - Class II, which involves formal Administrative Procedure Act hearings, with penalties up to $125,000.

  Actions under this section can preclude other civil penalty action or a citizen suit. Interested parties can comment on proposed penalty assessments.

- Civil Penalties. Sections 309(b) and (d) and 404 provide for appropriate injunctive relief and civil penalties of up to $25,000 per day for each violation of the Act or permit limitations.

- Criminal Penalties. Section 309(c) of the Act provides for criminal penalties of a fine of $2,500 to $25,000 per day, or up to 1 year imprisonment, or both, for negligent violations of the Act. (For subsequent convictions, fines up to $50,000 per day, or 2 years imprisonment, or both, may be called for.)

  Knowing violations are punishable by a fine of $5,000 to $50,000 per day, or up to 3 years of imprisonment, or both. (Subsequent convictions call for a fine up to $100,000 per day, or 6 years imprisonment, or both.)

  Any person who violates the Act, and knows other persons are placed in imminent danger of death or serious bodily injury, is subject to a fine up to $250,000 or 15 years imprisonment, or both. Organizations convicted are subject to a fine up to $1,000,000. The punishment is doubled for subsequent convictions.

- Sewer Bans. Under Section 402(h), EPA may pursue in court an order restricting or precluding new sewer hookups to POTWs violating permit limits.

- CWA Enforceable Provisions. Violations of the Act may be primarily categorized into the following areas:

  - Direct discharges other than those complying with an NPDES or dredge and fill permit;

  - Indirect discharges in violation of national pretreatment requirements;

  - Failure to perform wastewater monitoring, sampling, or test result reporting which are established by national requirements;

  - Improper discharge or disposal of sewage sludge;

  - Violations of administrative orders; and

  - Noncompliance with Section 308 information request letters.

- Inspection and Information-Gathering Authority. The CWA contains broad inspection authority (under Section 308), including the right of entry for access to records, inspection of monitoring equipment, and taking samples. Inspections may be made by EPA, State, or contractor personnel authorized by EPA pursuant to the 1987 CWA amendments. EPA also may require owners and operators of point sources to maintain records, conducting sampling, make reports, and provide other relevant information.

- Ineligibility from Federal Procurement and Assistance. Under Section 508, no Federal agency may enter into a contract with a person convicted of an offense under Section 309(c) for the procurement of any goods, materials, or services at a facility which gave rise to the conviction. In addition, pursuant to Section 508, Executive Order 11738 and EPA regulations (40 CFR Part 15) were issued rendering violating facilities potentially ineligible for Federal contracts, grants or loans, on the basis of any administrative or judicial determination of non-compliance.

2C RESOURCE CONSERVATION AND RECOVERY ACT

Purposes

RCRA was signed on October 21, 1976, and subsequently amended in 1980 and 1984. Its major purposes are to provide "cradle to grave" management of hazardous wastes, management of solid wastes, and regulation of underground storage tanks containing chemical and petroleum products.

Hazardous wastes are subject to regulation in their generation, transport, treatment, storage and disposal under Subtitle C. Subtitle C authorizes a comprehensive Federal program to regulate hazardous wastes from generation to ultimate disposal. A waste is hazardous under Subtitle C if it exhibits hazardous characteristics (corrosivity, reactivity, ignitability and/or extraction procedure toxicity), or if specifically listed by EPA. There are special management provisions for hazardous wastes created by small generators and hazardous wastes that are intended to be reused or recycled. Wastes excluded from regulation as hazardous wastes are household waste; crop or animal waste; mining overburden; wastes from processing and bonification of ores and minerals; flyash; bottom ash waste; slag waste; flue gas emission control waste; and drilling fluids from energy development.

Solid wastes, if land disposed, are regulated through State programs under Subtitle D. Solid waste includes garbage; refuse and sludge; and other solid, liquid, semi-solid or contained gaseous material which is discarded, has served its intended purpose, or is a mining or manufacturing by-product. Most industrial and commercial by-products qualify as a solid waste. Exclusions from solid waste include domestic sewage, irrigation return flow, material defined by the Atomic Energy Act, in situ mining waste, and NPDES point sources.

The 1984 amendments to RCRA, among other things, added Subtitle I, which enables national regulation of underground storage tanks for the first time. Underground storage tanks subject to Title I are those containing chemical and petroleum products; underground storage tanks containing hazardous wastes are regulated under Subtitle C.

Major Regulatory Provisions

- Hazardous Waste. Subtitle C establishes the statutory framework for the comprehensive Federal and State regulation of hazardous waste. The significant provisions are:
  - Waste Identification and Listing. Section 3001 requires EPA to identify the characteristics of hazardous wastes and to list particular hazardous wastes.
  - Generators. Section 3002 requires EPA to promulgate standards applicable to generators of hazardous waste. The 1984 amendments added subsection (b) which requires that each manifest include a certification by generators that they have a program of waste minimization, and that the proposed method of treatment, storage or disposal minimizes the present and future threat to human health and the environment.

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- Transporters. Section 3003 requires EPA to promulgate standards applicable to transporters of hazardous waste. Subsection (c), added in 1984, requires EPA to establish standards for transporters of fuel produced from hazardous waste.

- Facility Standards. Section 3004 requires EPA to promulgate standards applicable to owners and operators of hazardous waste treatment, storage, and disposal facilities. The 1984 amendments added several significant provisions to this section, including subsection (c) which bans liquids in landfills; subsection (q) which requires EPA to establish standards applicable to owners and operators of facilities which produce fuel from hazardous waste; subsection (t) which provides for direct action against guarantors under certain circumstances; subsection (u) which requires corrective action at permitted facilities; and subsection (v) which requires corrective action beyond facility boundaries.

- Permits for Facilities. Section 3005 requires EPA to promulgate regulations establishing a permit program for hazardous waste treatment, storage, and disposal facilities. Subsection (e)(2) was added in 1984 to provide that interim status facilities would lose their interim status 12 months after enactment (November 8, 1985), unless the owner or operator submitted a final Part B permit application and certified that the facility was in compliance with applicable and financial responsibility requirements.

- State Programs. Section 3006 provides for EPA to authorize State hazardous waste programs to operate in lieu of the Federal program, and requires EPA to promulgate guidelines to assist States in developing such programs.

- State Authority. Section 3009 requires that any State or local requirements respecting hazardous waste management be at least as stringent as any Federal regulations prior to the State receiving authorization.

- Effective Date. Section 3010 requires persons generating or transporting hazardous waste, or owning or operating a facility for the treatment, storage, or disposal of hazardous waste, to notify the Agency of such activities, and provides that regulations promulgated under Subtitle C become effective six months from the date of their promulgation.

- Assistance to States. Section 3011 authorizes the appropriation of funds to the States for purposes of assisting them in the development and implementation of authorized State hazardous waste programs, and provides guidelines for the allocation of such funds.

- State Inventory. Section 3012 requires each State to submit to the Agency an inventory describing the location of each site within the State at which hazardous waste has, at any time, been stored or disposed. (The provisions of Section 3012 which required the promulgation of regulations establishing standards for the protection of public health and the environment from hazards associated with recycled oil have been redesignated as Subsection 3014(a).)

  - Restrictions on Recycled Oil. Section 3014 requires EPA to establish standards and other requirements as necessary to protect public health and the environment from hazards associated with recycled oil. The 1984 amendments added subsection (b) which required EPA to propose, not later than 12 months after enactment (November 8, 1985), whether to list or identify used automobile and truck crankcase oil as hazardous waste, and not later than 24 months after enactment, to make a final determination whether to list or identify such oil; and subsection (c) which requires EPA to establish standards regarding the generation and transportation of used oil which is recycled as may be necessary to protect human health and the environment.

  - Export of Hazardous Waste. Section 3017 prohibits the export of any hazardous waste unless the person exporting such waste provides notification to the Administrator; the receiving country has consented to accept such waste; the consent is attached to the manifest; and the shipment conforms to the terms of the consent, or the U.S. and the receiving country have entered into an agreement and the shipment conforms to the terms of such agreement. The section also requires that EPA promulgate implementing regulations not later than 12 months after enactment (November 8, 1985).

- Solid Wastes. The second major part of RCRA, Subtitle D, provides for developing and encouraging methods for the disposal of solid wastes which are environmentally sound and conserve valuable resources. To fulfill these goals, Subtitle D:

  - Directs the promulgation of guidelines and criteria for the management of solid waste (Sections 1008 and 4004);

  - Provides for technical and financial assistance to States and local governments for the development of solid waste management plans (Sections 4002, 4003, 4006, 4007, and 4008); and

  - Prohibits future open dumping on land, and requires the conversion of existing open dumps to non-hazardous facilities (Section 4005).

- Underground Storage Tanks. The 1984 amendments added Subtitle I to the existing provisions of RCRA. Subtitle I provides for the regulations of underground storage tanks containing chemical and petroleum products. Underground storage tanks containing hazardous waste are regulated under Subtitle C. The major provisions of the Subtitle include:

  - Notification. Section 9002 requires each owner of an underground storage tank to notify the State or local agency of its existence within 18 months after enactment.

  - Release, Detection, Prevention, and Correction. Section 9003 requires EPA to promulgate release, detection, prevention, and correction regulations applicable to all owners and operators of underground storage tanks, as may be necessary to protect human health and the environment. The section also provides that, until the effective date of standards promulgated by EPA, no person may install such tanks unless they meet certain technical requirements.

- Other Provisions. In addition to the Subtitle C, D, and I provisions of RCRA, other important sections of RCRA include:
  - Control of Hazardous Waste Injection. Section 7010 prohibits underground injection of hazardous waste into or above any formation which contain an underground source of drinking water within 1/4 mile of the injection well. The provision is enforceable under Sections 7002 and 7003, and under the Safe Drinking Water Act.
  - Technical Assistance. Section 2003 provides technical assistance to Federal, State and local governments on solid waste management and resource recovery.
  - Conservation and Recovery. Sections 2003, 2004, 6002, and Subtitle E direct various activities to promote the conservation and recovery of valuable material and energy resources.
  - Training, Research, and Application. Subtitle H provides training grants in occupations involving the design, operation, and maintenance of solid waste disposal systems; promotes a national research and development program for improved solid waste management and resource conservation techniques; and promotes the demonstration, construction and application of solid waste management, resource recovery and resource conservation systems which preserve and enhance the quality of air, water, and land resources.

Enforcement Authorities

- Hazardous Wastes.
  - Inspections and Reporting. Section 3007 provides the authority to enter, inspect, copy records of, and obtain samples from facilities which handle hazardous waste. In addition, it gives EPA the authority to require persons to furnish information regarding hazardous waste they have handled, and delineates the availability of such information to the public. The 1984 amendments added subsection (c) which provides that EPA shall, or an authorized State may, inspect Federal facilities on an annual basis; subsection (d) which requires EPA to inspect facilities operated by a State or local government; and subsection (e) which requires that EPA or an authorized State commence a program that provides for inspection of permitted facilities at least every 2 years.
  - Federal Enforcement. Section 3008 provides EPA the authority to issue compliance orders, initiate civil litigation for injunctive relief, and assess penalties for violations of Subtitle C requirements, provides for criminal penalties for specified violations. The 1984 amendments added subsection (a)(3) which clarifies EPA's authority to assess penalties in Administrative actions; subsection (d) which expanded the list of criminal violations, and raised criminal penalties to $50,000 per day and a maximum two years imprisonment (five years for certain violations); and subsection (h) which authorizes EPA to issue administrative orders or commence civil actions for corrective action at interim status facilities.

- Monitoring, Testing, and Analysis. Section 3013 provides the authority to issue administrative orders requiring owners and operators of hazardous waste facilities to undertake monitoring, testing, analysis, and reporting regarding their facility whenever EPA determines that the release of any hazardous waste from such facility may present a substantial hazard to human health or the environment. It also provides authority for EPA to conduct its own studies, issue administrative orders requiring reimbursement for the cost of certain monitoring and testing, initiate civil actions to enforce such orders, and collect penalties for non-compliance.

- Solid/Hazardous Wastes.

  - Imminent Hazard. Section 7003 authorizes the Administrator to bring suit against or issue orders to any person contributing to the handling, storing, treating, transporting, or disposing of any solid or hazardous waste in a manner that may present an imminent or substantial endangerment to human health or the environment.

- Underground Storage Tanks.

  - Inspections, Monitoring, and Testing. Section 9005 provides that any owner or operator of an underground storage tank, upon request by a duly authorized representative of EPA or a State which has an approved program, shall furnish information relating to such tanks and their contents, and conduct testing and monitoring and grant reasonable access to such representatives.

  - Federal Enforcement. Section 9006 provides for administrative or judicial enforcement actions and the imposition of civil penalties for failure to comply with notification and other regulatory requirements of the Subtitle.

- Citizen Suits. Section 7002 allows citizen suits against any person, including the United States, who is alleged to be in violation of any permit, standard, or regulation which has become effective pursuant to RCRA; or against any person, including the United States, who has contributed or is contributing to the past or present handling, storage, treatment, transportation, or disposal of any solid or hazardous waste which may present an imminent and substantial endangerment to health or the environment; or against the Administrator where there is alleged a failure of the Administrator to perform any act or duty under this Act which is not discretionary with the Administrator. The section also delineates a number of limitations on such suits.

2D COMPREHENSIVE ENVIRONMENTAL RESPONSE, COMPENSATION, AND LIABILITY ACT (CERCLA OR SUPERFUND)

Purposes

CERCLA was enacted December 11, 1980, and amended October 17, 1986. It authorizes the Federal government to clean up hazardous substances at closed and abandoned hazardous waste sites, and to recover the cost of cleanup as well as associated damages from the responsible parties. Cleanup monies come from a "superfund" created by taxes on chemicals and hazardous wastes. CERCLA also authorizes the Federal government to take enforcement action against responsible parties to compel them to clean up sites.

Major Regulatory Provisions

- Cleanup Response

  - Cleanup. Section 104(a) is the central response mechanism contained in CERCLA. It grants authority to the Administrator to both eliminate the current danger posed by the release of a hazardous substance, and to provide long-term solutions to prevent future threats.

    Under Section 104(a), the Administrator can act to remove, arrange for removal, provide for remedial action, or "take any other response measure consistent with the national contingency plan which the Administrator deems necessary to protect the public health or welfare or the environment" if:

    -- A hazardous substance is released;

    -- There is substantial threat that a hazardous substance will be released;

    -- A pollutant or contaminant is released, and such a release "may present an imminent and substantial danger to the public health or welfare;" or

    -- There is a substantial threat that a pollutant or contaminant may be released, and such a release "may present an imminent and substantial danger to the public health or welfare."

    The section also provides that the Administrator may respond to a release unless the Administrator determines that response will be properly carried out by a responsible party.

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- Termination of Cleanup. Responses under Section 104(a) must be terminated after either 12 months have passed or $2 million has been spent. (Section 104(c)(1)(A)). This limitation has two exceptions. The first is contained in Section 104(c)(1)(A), under which the Administrator can continue a Section 104(a) response if he determines that:

  -- Continued response actions are immediately required to prevent or mitigate an emergency;

  -- There is an imminent risk to the public health, welfare, or the environment; and

  -- Such assistance will not be otherwise provided on a timely basis.

  The other exception to the Section 104(c)(1)(A) termination rule is applicable when the cleanup is a remedial action. For remedial actions, however, the Administrator must both "consult with the affected state or states before determining any appropriate remedial action," and enter into an agreement with the affected state(s) before providing remedial action. Even after such an agreement has been reached, the Administrator still has the power to select the "appropriate remedial actions." (Section 104(c)(4)).

- Investigatory Response. Section 104(b) authorizes the Administrator to use investigations, monitoring, surveys, testing, and other information gathering that may be needed to determine the source and the extent of danger from hazardous substances, pollutants or contaminants. The Administrator can initiate this investigatory response whenever he can act under Section 104(a).

  Moreover, an investigation can be initiated in circumstances when a Section 104(a) cleanup would not be allowed. The Administrator can act under Section 104(b) when he has "reason to believe" that:

  - A release has occurred;

  - A release is about to occur; or

  - Illness, disease, or complaints may be attributable to exposure to a hazardous substance, pollutant or contaminant, and that a release may have occurred or may be occurring.

- Federal Facilities. Section 120 confirms that CERCLA is applicable to Federal facilities, and defines the process by which Federal agencies are required to undertake remedial action at their facilities.

  - Selection of Remedy. Section 120 provides for joint EPA/Federal agency selection of the remedy, or selection by EPA, if EPA and the Federal agency are unable to reach agreement.

  - Docket. EPA is required to establish a special docket listing all Federal agency hazardous waste facilities. The docket is open to the public.

- Schedule for Response Activities. The section establishes a schedule for response actions at Federal facilities, and requires EPA to:
  - -- Assure that a preliminary assessment is conducted at each Federal facility on the docket within 18 months of enactment;
  - -- Where appropriate, evaluate Federal facilities for possible inclusion on the National Priorities List within 30 months of enactment; and
  - -- Review results of Federal agency remedial investigations and feasibility studies upon completion.
- State Role. Section 120 requires EPA to consult with State and local officials, to provide opportunity for State and local planning and formulation of remedies, and to consider their views in selecting remedies at Federal facilities. In addition, certain of the requirements for State involvement in determining cleanup standards apply to Federal facilities as well.

• Cleanup Standards. Section 121 establishes a variety of requirements relating to the level of cleanup for remedial actions under CERCLA. This section codifies many of the existing requirements under the National Contingency Plan (NCP), and also establishes additional directives regarding remedy selection, meeting State requirements, and formalizing the role of the States in the cleanup process.

- Basic Requirements. Section 121 requires the President to select remedial actions that are:
  - -- Protective of human health and the environment;
  - -- Cost-effective;
  - -- In accordance with the section; and
  - -- In accordance with the NCP.
- Permanent Solutions. Section 121 requires the President to select, to the maximum extent practicable, remedial actions that utilize permanent solutions and alternative treatment technologies or resource recovery technologies.

  It also requires the President, in evaluating various alternatives, to assess permanent solutions and alternative treatment technologies that will result in a permanent and significant decrease in the toxicity, mobility, or volume of the hazardous substance or pollutant or contaminant. In conducting the assessment, the President is required to address the long-term effectiveness of various actions taking the following into account;
  - -- Long-term uncertainties of land disposal;
  - -- Goals and requirements of the Solid Waste Disposal Act;
  - -- Persistence, toxicity, mobility and bioaccumulation;
  - -- Short and long-term potential for adverse human health effects;

-- Long-term maintenance costs;

-- Potential for future remedial action costs if the remedy fails; and

-- Potential threat to human health and the environment from the excavation, transportation, and redisposal, or containment of hazardous substances or pollutants or contaminants.

Further, Section 121 establishes a preference for remedial actions that utilize treatment to permanently and significantly reduce the volume, toxicity, or mobility of hazardous substances. Off-site transport and disposal without treatment is the least preferred option where practicable treatment technologies are available. If the selected remedy does not achieve the preference for treatment, the President is required to publish an explanation.

Finally, Section 121 authorizes the selection of permanent remedies whether or not the remedy has been achieved in practice at any other facility with similar characteristics.

- Compliance With Other Laws. Section 121 requires remedial actions to attain a degree of cleanup and control of further release which protects human health and the environment. It requires these remedial actions to comply with applicable or relevant and appropriate requirements (ARARs) under the circumstances.

-- On-Site Actions. For on-site actions, Section 121 requires remedial actions to at least attain legally applicable or relevant and appropriate Federal and State standards, requirements, criteria, or limitations, unless such requirements are waived.

--- Federal Requirements. The requirement to attain ARARs applies to Federal requirements under the Toxic Substances Control Act (TSCA), the Safe Drinking Water Act (SDWA), the Clean Air Act (CAA), the Marine Protection, Research, and Sanctuaries Act (MPRSA), and the Solid Waste Disposal Act (SWDA), among others.

Remedial actions must consider recommended maximum containment levels (RMCLs) and water quality criteria under the Clean Water Act where such requirements are relevant and appropriate under the circumstances.

Use of Alternate Concentration Limits (ACLs) is prohibited in establishing standards if the process assumes a point of human exposure beyond the boundary of the facility unless --

---- There are known and projected points of entry of the contaminated groundwater into surface water;

---- The remedial action includes enforceable measures to preclude human exposure between the facility boundary and points of entry into the surface water.

--- State Requirements. The requirement to attain ARARs applies to any promulgated State requirement under a State environmental or facility citing law that is more stringent than any Federal requirement, and that has been identified to EPA in a timely manner.

--- Waivers. Section 121 authorizes the President to select a remedial action that protects human health and the environment, but does not meet ARARs for on-site actions, if:

---- The remedial action is an interim measure where the final remedy will attain the ARAR upon completion;

---- Compliance will result in greater risk to human health and the environment than other options;

---- Compliance is technically impracticable;

---- An alternative remedial action will attain the equivalent of the ARAR;

---- For State requirements, the State has not consistently applied the State requirement in similar circumstances; or

---- For Section 104 remedial actions, compliance with the ARAR will not provide a balance between protecting public health, welfare, and the environment at the facility with the availability of Fund money for response at other facilities (Fund-balancing).

-- Off-Site Actions.

--- General Requirements. Section 121 allows the transfer of hazardous substances or pollutants or contaminants off-site only to a facility operating in compliance with RCRA (or in compliance with TSCA or other Federal laws where applicable) and all applicable State requirements.

--- Transfer to Land Disposal Facility. Section 121 authorizes transfer of hazardous substances or pollutants or contaminants to an off-site land disposal facility only if --

---- The unit to which the materials are being taken is not releasing hazardous waste into surface or ground water or soil; and

---- Releases from other units at that facility are controlled through RCRA Subtitle C corrective action.

- Permits. Federal, State, and local permits are not required for the portion of any removal or remedial action conducted entirely on-site.

Enforcement Authorities

- Access and Information Gathering. Section 104 confirms and expands the President's authority to obtain certain information and to gain access to sites to take or determine the need for taking a response or enforcement action under CERCLA.

  - Authority for Access and Information Gathering. Section 104(e) authorizes a designated representative of the President or a State or political subdivision under contract or cooperative agreement to obtain information and gain access to sites and adjacent property to determine the need for response, to choose or take a response, or to enforce any provision of CERCLA where there is a reasonable basis to believe there may be a release or threat of release of a hazardous substance.

    -- Access to Information. Upon reasonable notice, Section 104(e) requires persons to provide relevant information to the designated official concerning:

      --- Identification, nature, and quantity of materials generated, treated, stored, or disposed at the facility;

      --- The nature and extent of release or threatened release; and

      --- Information on ability to pay or perform cleanup.

    Also upon notice, Section 104(e) requires persons to grant access to a facility to inspect or copy documents, or at their option to provide copies.

    -- Entry. Section 104(e) authorizes designated representatives to enter at reasonable times:

      --- Any facility where hazardous substances have been generated, treated, stored, disposed, or transported from;

      --- Any facility where a hazardous substance has been or may be released; and

      --- Any facility where entry is necessary to determine the need for response or appropriate response or to conduct a response.

    -- Inspection and Samples. Section 104(e) authorizes a designated official to obtain samples from any facility. If samples are taken, the designated official is required to give the owner a receipt describing the sample(s), and (if requested) a portion of the sample(s). The designated official also is required to provide any analysis of the sample(s) to the facility owner.

-- Compliance Orders. If the request for access to information entry onto the facility, or the taking of samples is denied, Section 104(e) authorizes:

--- Issuance of an order for compliance after notice and opportunity for consultation;

--- Civil action to compel compliance with either a request or an order directing compliance with the request;

--- If there is reasonable basis to believe there is or may be a release, court orders to enjoin interference or direct compliance with the order unless the order was arbitrary and capricious; and

--- Civil penalties up to $25,000/day for failure to comply with the order.

-- Other Authority. Section 104(e) preserves the right to obtain access in any other lawful manner (which includes warrants).

- Information Entitled to Confidential Treatment. In accordance with Section 104(e)(7), no person required to provide information under CERCLA may claim that such information is entitled to protection unless the person shows each of the following:

-- The person has not disclosed the information to any other person (other than a local emergency planning committee under Title III, an officer or employee of the United States or a State or local government, an employee of the person, or a person who is bound by a confidentiality agreement), and such person has taken reasonable measures to protect the confidentiality of such information;

-- The information is not required to be disclosed or made available to the public under another Federal or State law;

-- Disclosure is likely to cause substantial competitive harm; and

-- The specific chemical identity, if sought to be protected, is not readily discoverable through reverse engineering.

The following information on hazardous substances is not entitled to protection:

-- Trade name, common name, or generic class or category;

-- Physical properties;

-- Hazards to health and the environment including physical hazards and potential acute and chronic health hazards;

-- Potential routes of human exposure;

-- Location of waste stream disposal;

-- Monitoring data or analysis on disposal activities;

-- Hydrogeologic or geologic data; and

-- Ground water monitoring data.

- Abatement Action. If the Administrator determines that there "may be an imminent and substantial endangerment to the public health or welfare or the environment," he has two options under Section 106(a):

  - The Administrator can require the Attorney General to seek the necessary relief in the Federal district court where the threat occurs. The district court is given jurisdiction to grant relief that the public interest and the equities of the case may require; or

  - The Administrator can act on his own by taking other action such as issuing orders that may be necessary to protect public health and welfare and the environment.

  A successful Section 106(a) action, whether it involves a court order or an order from the Administrator, forces a responsible party to clean up a site. This is fundamentally different from Section 104(a). There, the government itself performs the clean up, and then seeks court-imposed liability on responsible parties for response costs under Section 107.

- Settlements. Section 122 sets out procedures for negotiating settlements with potentially responsible parties (PRPs) for conducting response actions. This section essentially formalizes the settlement process which has already been established under EPA's existing settlement policy.

  - Authorization for Agreements. Section 122 authorizes the President to enter into agreements with PRPs to conduct response actions. However, nothing in the section prohibits the President from undertaking a response or enforcement action during the negotiation period when there is a significant threat to public health or the environment.

  - De Minimis Settlements. Section 122(g) authorizes the President, when practicable and in the public interest, to reach a settlement with PRPs if the settlement involves a minor portion of the response costs, and the amount and toxicity are minimal; or if the PRP is the owner of the site but did not conduct or permit the generation, transportation, storage, treatment or disposal of hazardous substances, and did not contribute to the release. De minimis settlements can be administrative orders or consent decrees.

  - Cost Recovery. Section 122 authorizes the head of any agency with authority to respond under CERCLA to settle a claim for cost recovery under Section 107 if the claim is for less than $500,000 and has not been referred to the Attorney General. The head of an agency can settle a claim that is greater than $500,000 only with the concurrence of the Attorney General. If the person fails to pay the claim, the section authorizes the Attorney General upon request to bring civil action.

2E TOXIC SUBSTANCES CONTROL ACT (TSCA)

Purposes

The Toxic Substances Control Act (TSCA), signed into law in October 1976, provides EPA with broad authority to regulate chemicals and chemical substances whose manufacture, processing, distribution in commerce, use or disposal may present an unreasonable risk of injury to health or the environment. The Act was enacted to keep harmful chemicals out of the environment and to fill the gaps in existing environmental laws in the areas of toxic substances.

The Act deals with all toxic chemicals planned for production, produced, imported, or exported from the country. TSCA applies primarily to manufacturers, distributors, processors, and importers of chemicals. The only exceptions to this authority are:

- Pesticides (as defined in FIFRA as a pesticide);
- Tobacco or tobacco products;
- Source material by-products or special nuclear material as defined by the Atomic Energy Act; and
- Food, food additives, drugs, and cosmetics under the Federal Food, Drug and Cosmetic Act.

Major Regulatory Provisions

- Inventory and Pre-Manufacture Notification. If EPA determines that a new chemical substance poses a risk to health or the environment, it can prohibit or regulate its manufacture.

  EPA has published an inventory of existing chemicals. Substances not on that list are considered "new," and require Pre-manufacture Notifications (PMN) to be submitted to EPA. Before manufacturing or importing new chemicals, or processing existing chemicals for significant new uses, notice must be submitted at least 90 days before manufacture, processing, shipping or sales (TSCA, Section 5). If EPA does not make a declaration within 90 days to restrict the product, then full marketing can begin, and the chemical is added to the inventory. Conversely, EPA may review the product data for an additional 90 days; negotiate for suitable data; prohibit manufacture or distribution until risk data are available; reject the PMN for insufficient data; or, pending development of a Section 6 rule, completely ban the product from the market.

- Testing. Under TSCA, Section 4, EPA can require product testing of any substance which "may present an unreasonable risk of injury to health or to the environment." Some testing standards are proposed, but no testing requirements for specific chemicals are yet in effect.

- Reporting and Recordkeeping. Section 8(a) deals with general reporting. The "first tier" rule now in effect is a short form seeking production and exposure data on over 2,300 existing chemicals. A "second tier" rule is expected to obtain more detailed data on a relatively small group of chemicals that may become priority candidates for regulation. Section 8(c) calls for records of significant adverse effects of toxic substances on human health and the environment. It requires that records of alleged adverse reaction be kept for a minimum of 5 years. Section 8(d) allows EPA to require that manufacturers, processors, and distributors of certain listed chemicals (designated under 40 CFR Part 716.13) submit to the EPA lists of health and safety studies conducted by, known to, or ascertainable by them. Studies include individual files, medical records, certain daily monitoring reports, etc.

  Section 8(e) requires action upon discovery of certain data. Any person who manufactures, processes or distributes a chemical substance or mixture, or who obtains data which reasonably supports the conclusion that a chemical presents a substantial risk of injury to health or to the environment, is required to notify EPA immediately.

- Regulation of Hazardous Chemical Substances. EPA can impose a Section 6 rule if there is reason to believe that the manufacture, processing, distributing, use or disposal of a chemical substance or mixture causes, or may cause, an unreasonable risk of injury to health or to the environment. Section 6 rules are currently in effect for several chemicals including PCBs. A Section 6 rule requires informal rulemaking, a hearing, and a cost-benefit analysis.

  EPA may ban, prohibit or restrict the manufacture, processing, distribution in commerce or use of chemicals or chemical substances. Regulation of chemicals may be done by:

  - Regulating concentrations;
  - Limiting amounts which can be manufactured;
  - Requiring specific markings or warnings;
  - Requiring production/quality controls;
  - Requiring use recordkeeping;
  - Imposing specific use restrictions; and
  - Requiring specific disposal requirements.

  PCBs are the only chemical identified by Congress by name for direct regulation: "within 6 months EPA shall promulgate rules for" disposal of PCBs, and marking of PCBs.

- Imminent Hazard. Imminent hazard is defined as a chemical substance or mixture causing an imminent and unreasonable risk of serious or widespread injury to health or the environment. When such a condition prevails, EPA is authorized by TSCA, Section 7 to bring action in U.S. District Court. Remedies include:
    - Seizure of the chemical or any article containing such chemical;
    - Notice of risk to the affected population; or
    - Recall, replacement or repurchase of the substance.

Enforcement Authority

- EPA Inspection Authority. Under Section 11, EPA "and duly designated representatives of the Administrator" may inspect any establishment, facility, or other premises in which chemical substances are manufactured, processed, stored, or used before or after their distribution in commerce, and any conveyance being used to transport chemical substances, mixtures, or such articles in connection with distribution in commerce.

  An inspection shall extend to all things within the premises or conveyance inspected (including records, files, papers, processes, controls and facilities) bearing on whether the requirements of TSCA applicable to the chemical substances or mixtures within such premises or conveyance have been complied with. The only exceptions are that no inspection shall extend to financial data, or research data (other than data required under TSCA or regulations), unless the nature and extent of such data are described with reasonable specificity in the notice of inspection.

  Inspections are to be commenced and completed with "reasonable promptness," and conducted at "reasonable times," within "reasonable limits," and in a "reasonable manner." Inspection may only be made upon:
    - Presentation of proper credentials;
    - Presentation of a written notice of inspection to the owner, operator or agent in charge of the premises or conveyance; and
    - Separate notice for "each such inspection," but a notice shall not be required for each entry made during the period covered by the inspection.

- Subpoena Authority. EPA may require the attendance and testimony of witnesses under oath, and/or the production of documents. Subpoenas do not have to be issued by a Court, and can be used to investigate any activity TSCA prohibits.

- Authority to Regulate Imports. EPA has authority to ensure that imported chemicals at a facility have the proper import documents. U.S. customs inspectors may refuse entry into the United States of foreign chemicals that fail to meet TSCA requirements.

- Prohibited Acts. Section 15 of TSCA specifically prohibits the following actions by manufacturers:

  - Failure or refusal to comply with any rules, orders, or requirements of Section 4 (testing), Section 5 (processing or manufacture notices), or Section 6 (regulation of hazardous chemicals, i.e., PCBs, asbestos);

  - Use for commercial purposes of a chemical substance or mixture which the manufacturer "knew or had reason to know was manufactured, processed, or distributed in commerce in violation of Sections 5 or 6 or an order under Section 7 (Imminent hazards);

  - Failure or refusal to establish or maintain records; submit reports, notices or other information; or permit access to or copying of records as required by TSCA or regulations; and

  - Failure or refusal to permit entry for inspection as authorized by Section 11.

- Civil Penalties. Civil penalties may be assessed against any person who violates a provision of Section 15. That person shall be liable for a civil penalty not to exceed $25,000 for each such violation. Each day such violation continues shall constitute a separate violation of TSCA.

  Civil penalties are assessed by the Administrator of EPA, (not the district courts), after written notice of the proposed penalty and an opportunity for hearing.

  In determining the penalty, EPA must consider the:

  - Nature of the violation;

  - Circumstances of the violation;

  - Extent of the violation;

  - Gravity of the violation;

  - Ability to pay a fine;

  - Effect of a fine on the ability to continue in business;

  - Degree of culpability; and

  - Other factors as justice may require.

- Criminal Penalties. Criminal penalties may be assessed against any person who knowingly or willfully violates any provision of Section 15. In addition to civil penalties, that person shall be subject, upon conviction, to a fine of not more than $25,000 per day for each violation, and to imprisonment for not more than one year.

- Enforcement and Seizure Authority. Section 17 provides specific enforcement and seizure authority to EPA through the U.S. District Courts. District Courts may:
  - Restrain (by injunction) any violation of TSCA (e.g., the sale of PCB contaminated oil);
  - Restrain persons from taking actions prohibited by Section 5 or 6 or rules promulgated thereunder (i.e., PCB rules);
  - Order environmental clean up required under TSCA (e.g., excavation of PCB contaminated soils); and
  - Direct manufacturers or processors of chemicals to notify distributors in commerce of the chemical substance, including persons in possession of the substance or those potentially exposed to the substance (e.g., PCBs that were accidentally added to paint prepared for residential users).

Other Important Provisions

- Confidential Business Information (CBI). Section 14 provides for disclosure of data by manufacturers. However, strict trade secret and confidentiality provisions are imposed on EPA. EPA may require disclosure of information, but must protect all data whenever data is designated as CBI under TSCA. Confidential data may be disclosed to contractors if the information is necessary for the proper performance of the contract, and may be disclosed to protect health or the environment from unreasonable risks. Wrongful disclosure of CBI carries personal criminal penalties of up to $5,000 and imprisonment.

- Preemption of State Laws. Nothing in TSCA shall affect the authority of States or political subdivisions of States to establish or continue regulation of any chemical substance, mixture or article containing a chemical substance or mixture, except that:
  - When EPA, by rule under Section 4, requires the testing of a chemical substance or mixture, no State may continue to require testing for similar purposes; or
  - When EPA, by rule or order under Section 5 or 6, establishes requirements for specific chemical substances, designed to protect against a risk of injury to health or the environment, no State or political subdivision may establish its own rules, unless the rules:
    - Are identical to EPA's;
    - Are adopted under authority of the Clean Air Act or other Federal law; and
    - Prohibit the use of such substance or mixture within the State (or subdivision) other than its use in the manufacture or processing of other substances.

Note: Section 18 does not allow States or political subdivisions to impose requirements specifically reserved in Section 6(a)(6) which establishes requirements for "any manner or method of disposal."

2F FEDERAL INSECTICIDE, FUNGICIDE, AND RODENTICIDE ACT (FIFRA)

Purpose

The purpose of FIFRA is to regulate the manufacture, distribution, sale, and use of pesticides so as to minimize risks to human health and the environment. A pesticide is defined as any substance intended to prevent, destroy, repel or mitigate pests. FIFRA requires the registration of all pesticides; restricts use of certain pesticides; establishes requirements for the certification of pesticide applicators; authorizes experimental use permits; establishes the conditions for cancellation of pesticides; requires the registration of pesticide manufacturers; and sets standards for the disposal of pesticides.

Under FIFRA, a pesticide must be labeled, and the label must specify the pesticide's ingredients, uses, warnings, registration number, and, if applicable, special use restrictions. A pesticide may lawfully be used only in accordance with its labeling. Regulations also specify tolerance levels for certain pesticide chemicals in or on agricultural commodities. These limits apply to 310 different compounds, and residue tolerances range from 0 to 100 ppm. A few pesticides also are regulated as toxic pollutants under Section 307(a) of the Clean Water Act, and by Primary Drinking Water Standards under the Safe Drinking Water Act.

Major Regulatory Provisions

- Registration and Classification of Pesticides. Section 3 prohibits the distribution and sale of pesticides that have not been registered with EPA, and sets out procedures and data requirements for registration. The section also classifies pesticides for "general" or "restricted" use. "Restricted" use pesticides are those that present particular hazards to the applicator or the environment, and may be used only by "certified applicators" or persons under their direct supervision.

- Use of Restricted Use Pesticides. Section 4 establishes procedures for the Federal government and States to certify applicators of restricted use pesticides, and delineates the basic requirements that State certification plans must meet.

  Section 4 also requires that, to become a certified applicator and thereby authorized to use or supervise the use of restricted use pesticides, a person "must be determined to be competent with respect to the use and handling of pesticides..." In accordance with Section 4 and Section 11, separate certification standards are established for "private applicators" (e.g., farmers and homeowners), and "commercial applicators" (e.g., pest control operator employees, aerial applicators, and government employees who apply pesticides as part of their employment).

- Experimental Use Permits. Section 5 allows experimental use of a pesticide, under a permit issued by EPA or an authorized State, to enable a manufacturer to develop the data necessary to register the pesticide under Section 3.

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- Cancellation of Pesticides. Section 6 provides that a pesticide's registration be cancelled automatically if the registrant does not request re-registration and submit supporting data required by regulation. Section 6 also provides that a pesticide's registration be cancelled, or its use classification changed, if the Agency determines, after public hearings and scientific review, that the pesticide "generally causes unreasonable effects on the environment."

- Registration of Establishments. Section 7 requires pesticide manufacturers to register with EPA. Manufacturers also are required to submit a report annually, specifying the types and amount of pesticides currently produced, produced during the past year, and sold or distributed during the past year.

- Disposal of Pesticides. Section 19 requires the Agency to establish procedures and regulations for the storage and disposal of pesticide containers and unused pesticides. The section also requires the Agency to provide advice and assistance to the Department of Transportation with regard to the transport of pesticides.

- State Primary Enforcement Responsibility. Section 26 provides that a State is to have primary enforcement responsibility for pesticide use violations if the Administrator determines that the State (a) has adopted adequate pesticide use laws and regulations; (b) has adopted and is implementing adequate procedures for the enforcement of such State laws and regulations; and (c) will keep records and make reports showing compliance with the requirements of a and b.

Enforcement Authorities

- Access to Books and Records. Section 8 requires pesticide producers, distributors, carriers, and dealers to keep records showing the identity and quantity of pesticides delivered, moved, or held; the date of shipment and receipt; and the name of the consignor and consignee. Data relating to finances, sales, prices, and research are exempt and may not be examined as part of an inspection. Inspectors are authorized to have access to and copy these records "at all reasonable times" upon presentation of appropriate credentials and a written statement as to the reason for the inspection.

- Inspection of Establishments. Section 9 authorizes entry into any place where pesticides are held for distribution or sale for the purpose of inspecting and obtaining samples of pesticides and their containers and labels. As with Section 8, credentials and a written notice explaining the reasons for the inspection must be presented to the person in charge of the facility prior to the inspection. If pesticide samples are taken, the inspector must give a receipt to the establishment owner or operator, provide a split sample if requested, and promptly provide a copy of the results of any analysis subsequently performed. The section also authorizes warrants (see section on warrants) for purposes of entry, inspection and reproduction of required records, and seizure of any pesticide which is in violation of the Act.

- Unlawful Acts. Section 12 enumerates 22 unlawful acts, the most significant of which (in summary form) are acts to:
  - Distribute or sell unregistered, adulterated, or misbranded pesticides;
  - Detach, alter, deface, or destroy a pesticide's labeling;
  - Refuse to keep or allow inspection of required records, or to allow the taking of samples;
  - Make available for use, or use, a restricted use pesticide except in accordance with the requirements of the Act;
  - Use any registered pesticide in a manner inconsistent with its labeling;
  - Violate any cancellation or suspension order; and
  - Knowingly falsify any required application, record, or report.

- Stop Sale, Use, or Removal Orders and Seizure. Section 13 authorizes the Administrator to issue an administrative order to stop the sale, use, or removal of any pesticide that is reasonably believed to be in violation of the Act; has been, or is intended to be, distributed or sold in violation of the Act; or has been cancelled or suspended. The section also authorizes seizure of any pesticide that has been adulterated or misbranded; has not been registered; bears inadequate or improper labeling; has not been colored or discolored (if required); differs in its claims or use directions compared to those in the registration application; or causes unreasonable adverse environmental effects even when used in accordance with applicable requirements and restrictions.

- Penalties. Section 14 authorizes the imposition of civil administrative penalties and criminal sanctions. Criminal sanctions may be imposed on anyone who "knowingly violates" any provision of the Act, or who, with intent to defraud, uses or reveals information relative to formulas of products acquired under registration authorities. Registrants, commercial applicators, wholesalers, dealers, and other distributors are subject to more stringent civil and criminal penalties than are private applicators or anyone else who does not fall into the first group.

- Judicial Enforcement and Review. Section 16 vests in the U.S. District Courts the jurisdiction to issue warrants and provide injunctive relief. Appeals of Agency orders are heard by U.S. Courts of Appeal, which may affirm or set aside all or part of an order. Decisions of the Courts of Appeal are required by Section 16 to be based solely on review of EPA's administrative record of the case.

2G SAFE DRINKING WATER ACT (SDWA)

Purposes

The Safe Drinking Water Act became law in 1974. It protects drinking water sources by regulating persons who inject fluids into the ground, and public drinking water consumers by regulating the quality of water distributed by public water systems. Both surface and underground public drinking water sources are thereby protected by the SDWA.

EPA regulations establish "at-the-tap" primary and secondary drinking water standards for public drinking water systems. National Interim Primary Drinking Water Regulations were adopted in 1975 to protect public health (40 CFR Part 141). Regulations covering radionuclides were added in 1976. Primary regulations for total thrihalomethanes were promulgated in 1979. Secondary regulations were established in 1979 as guidelines to States to protect the non-health-related qualities of drinking water.

The SDWA also provides for protection of underground sources of drinking water. Final regulations have been issued whereby States are to establish Underground Injection Control (UIC) programs to prevent endangerment of any underground sources of drinking water (USDW). Federal program regulations apply where States have not taken this action. Injection wells are divided into five classes for regulatory purposes. Construction and disposal standards are established for the permitting of Class I wells (hazardous, non-hazardous, and municipal waste wells injecting below underground sources of drinking water), Class II wells (oil and gas), and Class III wells (mineral extraction). Class I and Class IV wells are subject to RCRA requirements. Class IV wells are those used by generators of hazardous or radioactive wastes to dispose of hazardous wastes into formations within one-quarter mile of an underground source of drinking water. New Class IV wells are prohibited, and existing Class IV wells must be phased out within 6 months after approval or promulgation of a UIC program in the State. EPA has not yet developed a regulatory program for Class V wells (all other wells).

Major Regulatory Provisions

- Public Water Systems (PWS). Part B of the SDWA imposes requirements on persons who own or operate a system which has at least 15 service connections or 25 consumers, and provides piped water for human consumption. The regulations which implement these requirements to "protect health to the extent feasible" are titled the National Primary Drinking Water Regulations (NPDWR).

  The regulations control the presence of unhealthful substances in public water systems by defining "maximum contaminant levels" (MCLs) for various substances. All water suppliers must periodically sample the water delivered to users and record and report their findings to EPA or the State, whichever is appropriate. If there has been a failure by the supplier to meet all MCLs, or a failure to sample or report, the supplier must publicly notify his consumers. Variances or exemptions are available for systems meeting certain qualifications.

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Maximum contaminant levels have been established for certain organic and organic chemicals, coliform bacteria, turbidity, and radioactivity. EPA is required under the amended SDWA to promulgate over 60 new MCLs in the next three years, and establish filtration and disinfection requirements, for systems using surface water as their water source. EPA currently administers the SDWA public water system program in only two States (Indiana and Wyoming); in all others EPA oversees State implementation, but retains independent enforcement authority.

- Underground Injection Control (UIC) Program. Subpart C of the SDWA imposes requirements on any person who owns or operates a facility which injects fluids below the surface of the ground. The Agency administers this program directly in some 22 States and oversees State primacy programs in the remaining jurisdictions.

  The Agency's underground injection control (UIC) regulations control the presence of contaminants in groundwater sources of drinking water (aquifers) by prohibiting the movement of fluids from injection wells into a USDW, and by imposing appropriate technical requirements on well operators either through regulations or an operating permit. The regulations set different requirements for the different classes of injection wells. For example, the regulations ban certain hazardous waste injection wells; require permits or inventory information of other well operators; and impose sampling, recordkeeping and reporting requirements on all operators. The regulations also require corrective action to be taken when necessary, and control the plugging and abandonment of inactive and abandoned wells.

Enforcement Authorities

- General Inspection and Information-Gathering Authority. Inspection authority is provided by Section 1445 of the SWDA for both the PWS and UIC programs. An inspector duly designated by the Administrator may inspect each public water supplier or other person subject to a national primary drinking water regulation, applicable UIC program, or any requirement under the SDWA to monitor an unregulated contaminant. The inspector may enter to inspect "records, files, papers, processes, controls, and facilities, or in order to test any feature of a public water system, including its raw water source." Prior notice to States with primary enforcement responsibility is required for inspection of public water systems. State objection must be taken into account by EPA in determining whether to conduct the inspection. Section 1445 also requires PWS and UIC facilities to establish records, conduct monitoring, or provide reports or other relevant information as the Administrator prescribes by regulation.

- Public Water Systems. Until recently, EPA's authority to enforce against violations of the NPDWR was limited to bringing civil suit for injunctive relief and civil penalties of up to $5,000 per day of violation. EPA also was required to go through a number of procedural steps before it could take action in a primacy State. In cases of imminent and substantial endangerment to a public water system, EPA could pursue "emergency" administrative or judicial enforcement.

The June 1986 SDWA amendments added to EPA's authorities the ability to issue administrative compliance orders, assess administrative penalties of up to $5,000 for compliance order violations, and seek civil penalties of up to $25,000 per day of violation. The amendments also added civil and criminal penalties for persons who tamper or attempt to tamper with public water systems with the intention of harming persons. The criminal penalty includes imprisonment up to 5 years, fines in accordance with Title 18, or both. A civil penalty of up to $50,000 can be imposed.

The amendments also streamlined enforcement procedures in primacy States by authorizing EPA enforcement if a primacy State has not taken appropriate action within 30 days of notice from EPA. The amendments strongly suggest that EPA enforcement is mandatory in the absence of State action.

- Underground Injection Control Program. EPA's UIC enforcement authorities prior to the 1986 SDWA amendments paralleled the public water system authorities. The 1986 amendments added to EPA's authorities the ability to issue administrative compliance orders, and assess administrative penalties of up to $125,000 for UIC violations.

  The 1986 amendments also increased civil penalty authority up to $25,000 per day of violation; streamlined Federal enforcement in primacy States along the lines of the public water system enforcement program; and established felony-level sanctions for criminal violations. As with the PWS program, the amendments suggest that EPA enforcement is mandatory in the absence of State action.

2H EMERGENCY PLANNING AND COMMUNITY RIGHT-TO-KNOW

Purposes

The Superfund Amendments and Reauthorization Act (SARA) of 1986 was enacted into law on October 17, 1986. An important component of the SARA provisions is Title III: Emergency Planning and Community Right-to-Know Act of 1986. Title III establishes requirements for Federal, State and local governments and industry regarding emergency planning and "community right-to-know" reporting on hazardous and toxic chemicals. This legislation builds upon EPA's Chemical Emergency Preparedness Program (CEPP) and numerous State and local programs aimed at helping communities to better meet their responsibilities in regard to potential chemical emergencies. The community right-to-know provisions will help to increase the public's knowledge and access to information on the presence of hazardous chemicals in their communities and releases of these chemicals into the environment. States and communities, working with facilities, will be better able to improve chemical safety and protect public health and the environment.

The emergency planning and community right-to-know provisions have four major sections: emergency planning (Sections 301-303), emergency releases notification (Section 304), community right-to-know reporting requirements (Sections 311, 312), and toxic chemical release reporting emissions inventory (Section 313). Information from these four reporting requirements will help States and communities develop a broad perspective of chemical hazards for the entire community as well as for individual facilities.

Major Regulatory Provisions

Emergency Planning

Sections 301-303 of the law mandate that the Governor of each State organize a State Emergency Response Commission (SERC) which in turn designates Local Emergency Planning Committees (LEPC). The local committees are responsible for evaluating the available resources and developing emergency response plans for their communities.

Emergency Notification

Under Section 304, facilities must immediately notify the Local Emergency Planning Committees and the State Emergency Response Commissions likely to be affected if there is a release into the environment of a listed hazardous substance that exceeds the reportable quantity for that substance. Substances subject to this requirement are those on the list of 366 extremely hazardous substances as published in the Federal Register (40 CFR 355) or on a list of 721 substances subject to the emergency notification requirements under CERCLA Section 103(a) 40 CFR 302.4). Some chemicals are common to both lists.

Community Right-to-Know Reporting Requirements

There are two community right-to-know reporting requirements within the Emergency Planning and Community Right-to-Know Act. Section 311 requires facilities that must prepare material safety data sheets (MSDS) under the Occupational Safety and Health Administration (OSHA) regulations to submit either copies of their MSDSs or a list of MSDS chemicals to the Local Emergency Planning Committee, the State Emergency Response Commission, and the local fire department. Reporting under Section 312 requires a facility to submit an emergency and hazardous chemical inventory form to the Local Emergency Planning Committee, the State Emergency Response Commission, and the local fire department. Hazardous chemicals covered by Section 312 are those for which facilities are required to prepare or have available an MSDS under OSHA's Hazard Communication Standard and that were present at the facility at any time during the previous calendar year above specified thresholds.

Toxic Chemical Release Reporting

Section 313 of the Emergency Planning and Community Right-to-Know Act of 1986 requires EPA to establish an inventory of routine toxic chemical emissions from certain facilities. Facilities subject to this reporting requirement are required to complete a Toxic Chemical Release Form (Form R) for specified chemicals. The form must be submitted to EPA and those State officials designated by the governor, on or before July 1, 1988, and annually thereafter on July 1.

These reports should reflect releases during the preceding calendar year.

The purpose of this reporting requirement is to inform the public and government officials about routine releases of toxic chemicals to the environment. It will also assist in research and the development of regulations, guidelines, and standards.

The reporting requirement applies to owners and operators of facilities that have 10 or more full-time employees, that are in Standard Industrial Classification (SIC) codes 20 through 39 (i.e., manufacturing facilities) and that manufacture (including importing), process, or otherwise use a listed toxic chemical in excess of specified threshold quantities.

Facilities manufacturing or processing any of these chemicals in excess of 75,000 pounds in 1987 must report by July 1, 1988. Facilities manufacturing or processing in excess of 50,000 pounds in 1988 must report by July 1, 1989; thereafter, facilities manufacturing or processing more than 25,000 pounds in a year are required to submit the form. Facilities otherwise using listed toxic chemicals in quantities over 10,000 pounds in a calendar year are required to submit toxic chemical release forms by July 1 of the following year. EPA can revise these threshold quantities and covered SIC codes.

The list of toxic chemicals subject to reporting consisted initially of chemicals listed for similar reporting purposes by the States of New Jersey and Maryland. There are over 300 chemicals and categories on these lists. Through rulemaking, EPA can modify this combined list.

Enforcement Authorities

Section 325 of the Emergency Planning and Community Right-to-Know Act addresses the penalties for failure to comply with the requirements of this law. Civil and administrative penalties ranging from up to $10,000 - $75,000 per violation can be assessed to facilities that fail to comply with the emergency planning (Section 302), emergency notification (Section 304), community right-to-know (Sections 311 and 312), toxic chemical release (Section 313) and trade secret (Sections 322 and 323) reporting requirements.

Criminal penalties up to $50,000 or five years in prison may also be given to any person who knowingly and willfully fails to provide emergency release notification. Penalties of not more than $20,000 and/or up to one year in prison may be given to any person who knowingly and willfully discloses any information entitled to protection as a trade secret. In addition, Section 326 allows citizens to initiate civil actions against EPA, State Emergency Rsponse Commissions, and/or the owner or operator of a facility for failure to meet the requirements of the emergency planning and community right-to-know provisions. A State Emergency Response Commission, Local Emergency Planning Committee, State or local government may institute actions against facility owner/operators for failure to provide trade secret information.

CHAPTER 3

COMPONENTS OF A COMPLIANCE PROGRAM

For each environmental law and regulatory program, EPA has developed a systematic program to achieve high compliance levels. Such a compliance and enforcement program makes use of appropriate strategies and tools to influence the regulated community to comply with the law. Each program is different, taking advantage of the unique opportunities presented by the nature of the regulated community and the provisions of the law.

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3A OVERVIEW

People tend to think of compliance and enforcement in very simple terms: the government performs an inspection, and if a violation of an environmental requirement is discovered, the government takes an enforcement action to make the company comply and perhaps pay a penalty. While this perception captures the essence of a compliance and enforcement program, it is important to understand the context within which such individual actions to detect and correct violations take place.

Designing and implementing a compliance and enforcement program involves a great many decisions. It begins with how a new law or regulation is written; enforcement staff are often involved in reviewing or drafting portions of regulations or permits to help assure that they are written in a clearly enforceable way.

A compliance and enforcement strategy is then developed for each regulatory program which spells out how the Agency will use the various tools it has available to achieve compliance by various segments of the regulated community. One element of the strategy is a compliance monitoring plan setting out the priorities and rationale for conducting on-site inspections and other types of compliance monitoring at different categories of regulated facilities. Another element is the enforcement response policy which sets out a hierarchy showing how seriously the Agency views the many ways in which a regulation can be violated and the appropriate level of enforcement action and/or sanction associated with each.

At the individual activity level, there are still more decisions to be made once a facility is scheduled for inspection. Inspections serve many functions. Each facility is likely to be subject to literally hundreds of requirements. What is (are) the specific purpose(s) of this particular inspection? How detailed an inspection will be conducted? Assuming that a violation was found by an inspector, additional decisions must be made by the attorneys. What level of action should be taken given the seriousness of the violation and other factors such as compliance history of the facility? What if the facility is a Federal facility? What if a contractor runs a Federal facility? When should litigation be pursued? Should the Agency settle? Then, once the enforcement action is completed (that is, there is some agreement or order requiring the facility to come into compliance), what follow-up steps should be taken to ensure that the facility does what it is required to do?

This overview section contains a general discussion of these components of a compliance and enforcement program. Because they are the central elements of the program, more detailed discussions of Compliance Monitoring and Enforcement Response are contained in Sections 3B and 3C, respectively.

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Statutes and Regulations

EPA's environmental regulatory programs begin with statutes, the laws which are enacted by the U.S. Congress. The power to enact such laws was granted to Congress in the Constitution. The statutes direct EPA to deal with specific environmental problems by regulating the activities of industries and other segments of the public that contribute to those problems. In some statutes Congress has given only broad guidance to EPA as to the regulatory approach to be used. In others Congress has been much more specific, sometimes even including standards and deadlines to be met by regulated industries.

Overall, these laws give general authority and prescribe broadly drawn requirements and standards. To put the statutes into effect, EPA issues regulations which interpret the statutes and tell the regulated community precisely what standards they are required to meet under the law, and by what date. The environmental regulations are assembled in Title 40 of the Code of Federal Regulations.

When a statute has left out the specifics, it is EPA's job to fill this gap, calling upon technical experts who know how the regulated industries operate and are able to propose regulations that are clear to industry managers and recognize existing conditions in the industry. Public comment preceding final regulations allows EPA to make the requirements clearer.

A well written regulation helps to answer an industry manager's questions, such as: Is my facility subject to this law? What would be acceptable performance under this law? What would be a violation? What sort of actions should I take to bring my facility into compliance? Am I required to submit any documents to EPA? When are they due, what should be included in them, and to whom do I send them?

The same information in a regulation becomes the basis for inspections, because the inspector can compare the facility's performance against the standards prescribed in the regulation.

Compliance and Enforcement Strategy

A compliance and enforcement strategy is a plan for deploying EPA's resources in ways that will achieve the highest possible compliance with a given law and its implementing regulations. The "strategy" is not usually one document, but rather the combination of program guidances, outreach plans, compliance monitoring plans, and enforcement policies which together form the Agency's strategy for achieving compliance. These policies and documents are assembled in a "Compliance/Enforcement Policy Compendium" for each program. A "Federal Facility Compliance Strategy" deals specifically with Federal facility compliance, inspection, and enforcement issues under all statutes.

In developing a compliance and enforcement strategy for a given statute or regulation, EPA considers the whole range of tools that might be used to influence the behavior of the specific regulated community involved. These tools span a wide range from education and technical assistance to compliance monitoring and enforcement actions. By first identifying the regulated community and analyzing its characteristics, EPA can tailor a strategy which focuses appropriate compliance activities on the various segments of the regulated community.

For example, some regulations affect literally hundreds of thousands of small businesses. Since it would be impossible to inspect more than a small fraction of these facilities, the compliance strategy might place a heavy emphasis on compliance promotion, such as educational efforts to inform facility owners about the requirements and how they can comply. By contrast, the compliance strategy for a regulation affecting a relatively small number of large facilities might emphasize frequent inspections of all facilities.

Usually, regulations affect a variety of facility types and sizes, and the compliance strategy sets out plans for using several approaches to gain compliance. The most intensive compliance monitoring and enforcement efforts are generally directed at those segments of the regulated community most likely to be in noncompliance and/or whose compliance is most necessary to achieving the environmental benefits envisioned by the law or regulation.

Compliance Monitoring

Compliance monitoring encompasses all of the means used to determine the compliance status of a facility or site (e.g., applicable to the CWA, Section 404 program and Superfund), ranging from in-office screening of self-monitoring reports to on-site facility inspections. On-site inspections are the main tool used. Such inspections fulfill the following objectives:

- Observe the facility and identify specific environmental problems, if any exist. This information will enable EPA to determine whether the facility is in compliance.
- Provide EPA with facts about a facility's or site's compliance status and/or about certain problems.
- Collect and preserve evidence of any specific problems that appear to be violations.
- "Show the flag" -- the inspection itself creates a credible presence of the interest and power of government in the environmental compliance status of the inspected facility and other similar facilities.

Every inspection serves all four objectives to some extent, although the design of a given inspection will reflect the relative importance of each objective in that instance.

Compliance monitoring and the functions of on-site inspections are discussed in more detail in Chapter 3B.

Enforcement Response to Violations

It is EPA's policy to make a timely and appropriate enforcement response to any violations that have been identified by an inspection. There is a range of possible responses, representing different levels of seriousness and effort, and each EPA program has considered which types are appropriate to given classes of violations. Specific time frames have been set for each program as formal enforcement goals for at least the most significant violators.

The broad categories of enforcement responses are these four "levels of action":

- Informal administrative responses, such as a notice of violation.
- Formal administrative responses, such as an administrative complaint assessing a penalty.
- Civil judicial responses, such as an injunctive action in district court against the violating facility seeking a penalty and a court order to compel compliance.
- Criminal judicial responses, such as a criminal prosecution against a knowing and willful violator seeking a fine and imprisonment.

The unique aspects of an enforcement response to violations at a Federal facility, e.g., consent orders and interagency agreements, are discussed in the "Federal Facility Compliance Strategy." The goals of enforcement and enforcement responses are discussed in more detail in Chapter 3C.

Follow-up to Enforcement Actions

After an enforcement action has been taken, the next question is whether the facility actually has complied with the terms imposed by the enforcement action, as well as with the law or regulation. EPA establishes this in two ways:

- Scrutiny of reports, records, or plans the facility is required to submit to EPA. Many enforcement agreements include schedules by which specific activities must be completed and the particular documentation that the facility must submit to demonstrate and report on their progress. Such reporting would be in addition to any other reporting already required by statutes and regulations.
- Inspection. This may include a specific follow-up inspection, earlier scheduling of the next routine inspection, or focusing the next routine inspection on the problems associated with the violation.

If the facility is found not to be in compliance, EPA will step up its enforcement action to a higher level of action. For instance, if a facility has not complied with an administrative order, the next step may be to initiate a lawsuit. Failure to comply is taken seriously by EPA, and more serious sanctions will be sought.

3B COMPLIANCE MONITORING

Literally thousands of facilities are subject to the environmental laws administered by EPA. Since each facility is likely to be regulated under several EPA statutes, and each regulation may include numerous requirements, it is virtually impossible for EPA and States to continuously check for compliance with every requirement at each facility. Therefore, one of the most challenging aspects of compliance and enforcement programs is developing strategies to make the most effective uses of limited resources to achieve Agency objectives.

To meet this challenge, EPA employs a planning process to establish compliance priorities. Priorities established during a planning process form the basis for compliance monitoring plans, which set out how the Agency's compliance monitoring tools will be used to assess the compliance of various segments of the regulated community. Compliance monitoring activities take three basic forms:

- In-office review and screening of data submissions of source self-monitoring reports.
- Telephone or written requests for information.
- On-site inspections of various types.

Most programs rely heavily on inspections as a first-hand means for determining compliance, detecting violations, and identifying priority compliance problems.

Types of Compliance Monitoring

There are three basic types of compliance monitoring, and their use varies among the major EPA environmental programs depending upon the nature of the regulated substances, the types of sources involved, and other factors. Overall, the first two types of compliance monitoring listed below (source self-monitoring and inspections) are the most important.

Source Self-Monitoring

A fundamental principal of U.S. environmental policy is that regulated parties should keep track of their own compliance status and report all or part of the resulting data to the responsible environmental agency. These requirements are based, in part, on the assumption that the obligation to collect and report this information will result in more attention from high-level corporate officials to preventing and correcting pollution problems.

Self-monitoring and reporting requirements are also an important tool for enforcement. Self-monitoring reports identify potential violations, help the Agency schedule on-site inspections more effectively, and give inspectors a more complete picture of the compliance behavior of a given source than could be gained on a one-time visit.

While required self-monitoring and submission of reports are key features of many EPA programs, regulated sources also receive periodic on-site inspections. Part of the on-site inspection is a review of the source's self-monitoring, recordkeeping, and reporting practices; sources who submit incomplete, inaccurate, or false information are subject to civil or criminal sanctions.

Inspections

Although self-monitoring has attained major importance, inspections are the backbone of EPA's compliance monitoring programs. They are the government's main tool for officially assessing compliance. Inspections are vital to assuring the credibility of self-monitoring programs because the regulated community knows there will be a periodic assessment of the quality of the data that is submitted.

An inspection is an examination into the environmental affairs of a single regulated facility. The principal purpose is to assess the performance of the facility to see whether it is in compliance with applicable environmental requirements. Findings from the inspection form the basis for a variety of actions the Agency might take to bring a noncomplying facility into compliance.

Area Monitoring

Less used than the self-monitoring and inspections for direct compliance monitoring purposes, area monitoring consists of methods of monitoring environmental conditions in the vicinity of a facility or over a larger area. Methods used include ambient monitoring, remote sensing, and overflights. Area monitoring is used to assess progress in meeting legislated goals and standards, assess impacts of various activities, assess trends, and provide data useful in assessing risks and health impacts. It is also a useful screening device for identifying potential violations and areas where compliance problems may be found.

The Functions of On-Site Inspections

On-site inspections serve several functions in support of the Agency's broad goal of ensuring that environmental requirements are being implemented effectively.

With respect to compliance monitoring, inspections may serve the following functions:

- Assessment of compliance status and documentation of violations for enforcement action. Inspections permit EPA to collect information that will illuminate whether or not a facility is in compliance with requirements, as well as determine if source self-monitoring and reporting is being performed in accordance with established protocols.

  A principal function of an inspection is detecting and documenting violations at the facility. Evidence collected during the inspection supports the resulting enforcement action that will bring the facility into compliance with EPA regulations.

  In addition to information on noncompliance, the Agency also needs to know in what ways facilities are in compliance. Information that documents compliance is useful for future inspections of the same facility. It is also crucial to the development of an understanding of compliance patterns across the regulated community. Knowing how various segments of the regulated universe are likely and not likely to be in compliance with the various requirements is essential for planning, evaluating, and refining compliance strategies. In addition, the accumulation of such information assists EPA's internal communication and communication with the public, regarding progress made in achieving the goals of the program, as well as problems remaining to be addressed.

- Oversight of State inspection programs. EPA establishes national standards and requirements under the various Federal environmental statutes. Although there are some exceptions, operating responsibility for most environmental programs, including responsibility for compliance monitoring and enforcement, has been delegated to the States through a formal State program approval process. States that demonstrate they have the necessary authority and capacity operate the programs in lieu of EPA. Nevertheless, EPA retains ultimate responsibility for program success and retains parallel enforcement authority. As part of the exercise of this responsibility, therefore, oversight inspections are conducted by EPA to review the overall effectiveness of the States' efforts at maintaining compliance. Oversight inspections may be conducted jointly with State personnel; EPA may observe a State inspection; or EPA may conduct its own inspection and then compare the results against the State's inspection.

In addition to these compliance monitoring functions, on-site inspections may serve several other functions, such as:

- Gather data as part of area/industry-wide inspections and assess the adequacy of need for additional controls.

- Promote voluntary compliance through the provision of information and technology transfer. Inspections provide an opportunity for EPA to communicate program requirements to the regulated industry. Using inspections as a precursor to providing information is beneficial since policy tends to evolve even after a regulation has been in place, and new requirements are often added. EPA's on-site presence can also be applied to meeting the informal consulting or technical assistance needs of facilities, especially for Federal facilities, thus enhancing their abilities to meet EPA program requirements. At the same time, inspections offer a chance for the regulated community to inform EPA of any difficulties encountered or creative solutions applied to satisfy program requirements.

- Establish a Federal enforcement presence to promote compliance. Inspections serve as a visible manifestation of the regulatory process. As such, they provide the opportunity to "show the flag," while displaying an overt enforcement presence. For example, inspections lend credibility to source self-monitoring programs by providing a vehicle for independent evaluation by the government of a facility's compliance status. In addition, inspections serve as enforcement mechanisms for the detection and verification of violations. Violations documented during the inspection process can result in penalties or other actions that adversely affect a source. Therefore, the likelihood of inspection and, by extension, the real risk of being found in violation can act as a powerful deterrent to noncompliance (or, as a powerful inducement for compliance).

- Support the permit issuance process. For some EPA programs, the Agency has responsibility for issuance of a permit. States also may be responsible for permitting and enforcement. EPA (and/or the State) may conduct inspections to gather data in support of the permit issuance process. In addition, data collected during an inspection can be used to support the process of setting standards.

- Train EPA/State staff. Inspections may be employed as training vehicles. Inspector personnel may be sent on-site to gain experience in new programs or to become familiar with new types of processes or facilities. Similarly, States may request EPA technical assistance in training their personnel or in alleviating an identified inspection program weakness; in such cases, the on-site inspection may serve as a training mechanism for State personnel.

Reasons for Inspections: Facility Selection Schemes

As part of its mission, EPA conducts on-site inspections for the purpose of determining a facility's compliance with regulations associated with specific legislation. However, since no program has the virtually limitless resources that would be required to inspect all facilities subject to these regulations, programs develop strategies allocating inspections to various segments of the regulated community.

Essentially, there are four categories of inspections:

- Routine. Routine inspections are conducted at facilities that are members of a class or segment of the regulated universe targeted under a neutral administrative inspection scheme (see discussion below). The Agency has no indication that the facility is in violation in advance of a routine inspection; the inspections are conducted to determine compliance with all (or a priority portion) of the program's requirements. The largest number of inspections are routine inspections.

- For cause. If a facility is selected to be inspected "for cause," there is some reason to suspect that an actual violation exists based upon a tip, a complaint, source self-monitoring report, other information, or a referral from another agency. Under these circumstances, EPA may perform an inspection to confirm noncompliance. An emergency may also evoke a "for cause" inspection if the situation may cause harm in the absence of immediate remedial action. One of the principal distinctions between "for cause" and routine inspections is that in "for cause" inspections, the inspector will know in advance what he or she is looking for.

- Case development support. Sometimes evidence in addition to that collected on an initial inspection is needed for continued case development and/or to support prosecutions. On such inspections, inspectors collect evidence in accord with the requirements specified by the case development or litigation team.

- Follow-up. Follow-up inspections are performed to determine whether a facility found to be in violation during a prior inspection is now in compliance with the terms of the resultant enforcement action, such as an EPA consent decree or administrative order. Each program allocates a percentage of its inspection resource to follow-up inspections. Such inspections help to ensure the integrity of the enforcement program; if the facility is found still out of compliance, EPA will usually step up to a stronger enforcement action.

Overall Inspection Scheme

The overall inspection schemes developed by each program allocate a proportion of inspections to the categories described above based upon the Agency's identified enforcement priorities and the program's Operating Year Guidance and Annual Implementation Plan documents. These are also stated in an annual summary of enforcement priorities published by the Office of Enforcement and Compliance Monitoring.

Each program has a somewhat different approach to establishing goals and priorities. However, three factors are central to determining the thrust of compliance and enforcement efforts:

- The likelihood that a violation in a class or segment of sources will present a significant risk to human health and the environment.

- The likelihood that a class or segment of sources will violate environmental laws or regulations.

- The likelihood that inspections of a class or segment of sources will contribute significantly to ensuring a credible enforcement presence.

In a high-priority class, every member might be inspected. In lower-priority classes, only a small percentage sample would be inspected.

Each EPA program has developed a "neutral" administrative inspection scheme setting out how the regulated community is divided into classes or segments for routine and follow-up inspection targeting purposes. Typical criteria for these segments include type of industry, size of facility, and amount of pollutants handled.

Although under the neutral scheme, classes or segments of the regulated community may be targeted for inspection, the specific sites within each class or segment must be selected in a non-biased way for inspection. If sites to be inspected are chosed under a pre-existing general administrative plan, this is consistent with the findings of the Supreme Court's decision in Marshall vs. Barlow's, Inc., 436 U.S. 307 (1978). Note that actual inspection scheduling also takes into account factors such as geographic and seasonal considerations.

Allocation of Inspections

The bulk of inspections are typically assigned to the category of routine inspections. A significant portion is assigned to follow-up inspections, since such inspections are essential to the integrity of an enforcement program (i.e., violators must know that failure to correct violations in a timely manner will result in further penalty). Nevertheless, limitations on resources do not permit follow-up of every action. Therefore, planning for follow-up inspections also involves neutral administrative selection schemes, similar to those employed for routine inspections. Finally, with respect to "for cause" inspections, not all tips or complaints trigger an inspection. Such information must be evaluated against program priorities and goals to determine whether an immediate on-site inspection is warranted, or whether some other follow-up action (e.g., a phone call or other request for information) is the most appropriate initial response. When an inspection is determined to be the appropriate response, it may alter the administratively pre-determined balance among the inspection categories. In that event, typically, it is the lower priority routine inspections that are postponed or deleted from the inspection schedule.

While the information in this text primarily focuses on routine inspections, it is always important for inspectors to understand the reasons for inspection and how a facility came to be included in the schedule because these factors impact inspection objectives and definition of the scope of the inspection, as discussed in Chapter 10.

Levels of Inspection

The intensity and scope of an inspection can range from a quick walk-through inspection that takes less than half a day to an inspection with extensive sample collection that takes up to several weeks to complete. Each program has its own approach to categorizing the different types or levels of inspections that can be conducted; the time involved in each will also vary depending upon the complexity of the facility and of the particular requirement(s) for which compliance is being assessed. Nonetheless, any situation could lead to an enforcement action and to litigation. Therefore, everything an inspector does and says may be subject to courtroom inquiry.

While there is a variety of approaches to categorizing inspections, it is possible to state typical features of general categories.

- A "walk-through" level of inspection would generally be limited to walking through a facility, checking only for the existence of control equipment, observing work practices and housekeeping, and checking if there is a records repository. Such inspections help to establish an enforcement presence, and can also be a screening tool to identify facilities for more intensive inspection at a later time.

- A "compliance evaluation inspection" is the most common form of inspection. Depending on the program and the scope of inspection determined for the specific facility being inspected, it might include: visual observations as in the "walk-through," review and evaluation of records, interviews with facility personnel, and other evidence collection activities (including physical sampling in some cases). It might also include detailed review and critique of source monitoring methods and data as well as probing for details about process and control devices that are in place.

- A "sampling inspection" can include some or all of the activities described above, but would always involve pre-planned sample collection. The sample collection might be done to duplicate the source's own sampling and laboratory analysis procedures to double-check actual pollution emission or discharge rates, or the sampling might be done to document the extent of a contaminated area or environmental damages. Sampling inspections are the most resource-intensive since they involve extensive advance planning as well as use of laboratory analytic services after the inspection.

3C ENFORCEMENT RESPONSES

An enforcement action is a response to something a person or company has done in violation of a law or regulation. The violator started the chain of events that led to enforcement action; the Agency gets involved to correct the situation. It is EPA's policy that every instance of noncompliance is responded to in some way, with the type of response commensurate with the seriousness and circumstances of the violation.

EPA has a range of options when contemplating an enforcement response against a violator, determined by authorities of each statute. These options range from informal actions that take little effort to formal ones involving large commitments of time and money. EPA views these as its enforcement arsenal, from which the most appropriate tool may be selected for the job at hand. The unique situations for enforcement at Federal facilities, whether run by an agency directly or through a contractor, are addressed in the "Federal Facility Compliance Strategy."

The Goals of Enforcement

In choosing the appropriate enforcement response to a given violation, EPA tries to achieve several goals:

- Correction of the violation as quickly as possible. In many cases an environmental problem or threat has been created by a violation. It is the Agency's goal to resolve that problem or threat quickly.
- Deterrence of future violations by the same party or by other parties.
- Equitable treatment of the regulated community through use of a uniform approach to selecting enforcement responses (i.e. similar violations are treated similarly).
- Punishment of serious, willful wrongdoing by imposition of criminal sanctions, such as fines and jail time.
- Effective use of enforcement resources by using the enforcement response that achieves the environmental and health goals at the least expenditure in money and staff time.

Types of Enforcement Responses

A broad array of possible enforcement responses is available under the environmental laws EPA administers. The Agency usually has room to exercise judgment in selecting the response to a given noncompliance situation, including asking for additional data through its information gathering tools. The broad spectrum of responses reflects four "levels of action," differing in severity and in the scale of Agency resources required. Inspectors play a role in each type of response. They may help in drafting informal responses or even formal complaints; they are often key witnesses in cases which are litigated.

A given violation may be addressed by actions at more than one level. It is EPA's policy to escalate its enforcement response in a given case, if a lower-level response fails to achieve satisfactory results in a timely manner.

The four levels of action are described here in order of increasing severity:

- Informal responses are administrative actions, such as a notice of noncompliance or a warning letter, that are advisory in nature. In these actions, EPA advises the manager of a facility what violation was found, what corrective action is needed, and by what deadline the violation should be corrected. Generally, informal actions are used for lower priority violations and for first-time violators. Although informal actions carry no penalties nor power to compel action, the record of informal actions can be used later to support more severe actions of the types discussed below.

- Formal administrative responses are formal, legal actions that result in an order requiring the violating facility to correct the violation and, in most cases, to pay a civil penalty amount commensurate with the seriousness and the circumstances of the violation. These administrative actions are strong enforcement tools; if a person violates the terms of an administrative order, EPA may obtain U.S. Court action to force compliance with the order.

  Because they are generally the most expedient means of requiring correction, administrative actions are used heavily by most programs that have the authority for them. Administrative actions also include more rarely used options such as revoking or suspending permits or removing violating products from commerce.

  Administrative actions in several programs are taken under EPA's internal administrative litigation system, which is comparable to any court system, except that it is presided over by EPA's own administrative law judges (ALJs). All administrative actions have the potential to be challenged in the U.S. Court system, so conduct of these actions is governed by an extensive set of procedural rules designed to provide due process to the alleged violator and ensure the integrity of the system. Violating firms may appeal the initial rulings of the ALJ to the EPA Administrator and may appeal the Administrator's final decision to the U.S. Courts.

- Civil judicial responses are formal actions taken in the U.S. Court system by the U.S. Department of Justice (DOJ) at the request of EPA. Typically they are used against the more serious or recalcitrant violators of environmental laws, and to seek prompt correction of imminent hazard situations posing an immediate threat to human health or the environment. Preparation of civil judicial cases is resource-intensive, both because of DOJ involvement and the more formalized procedures required for court actions than for administrative actions. Sometimes judicial litigation may take several years to complete. For these reasons, EPA often addresses violations through administrative mechanisms, if possible.

  Civil judicial cases often result in penalties and court orders requiring correction of the violation and requiring specific actions (such as specialized monitoring) to prevent future noncompliance.

- Criminal judicial responses are taken when a person or company has knowingly and willfully committed a violation of the law. In a criminal case, the Department of Justice prosecutes an alleged violator in the U.S. Court system, seeking criminal sanctions, usually including fines and incarceration. Criminal actions are taken for flagrant, intentional disregard for environmental laws (such as midnight dumping) and deliberate falsification of documents or records. Criminal cases are usually brought by DOJ at the request of EPA, but DOJ also can initiate them on its own.

  Criminal cases are the most difficult to pursue. They require special investigation and case development procedures, and they involve the highest standard of proof, including proof of the intent of the violator to commit the violation.

Enforcement Response Policies

Nearly all EPA programs have issued penalty policies based on an Agency-wide framework that sets out the principles and rationale for determining the seriousness (or "gravity") of various types of violations as a factor in assessing penalty amounts.[1] Some programs have also issued broader enforcement response policies indicating the level of enforcement action that is appropriate to different violation and compliance history situations. Some program policies also set out which individual violations would be grouped together in a formal enforcement action and counted as one charge (with one penalty assessed), and other types of violations that would normally be considered "other lesser charges" (no penalty assessment). Each program's "Compliance/ Enforcement Policy Compendium" contains its current response policies, penalty policies, and associated guidance.

Ideally, every potential violation observed by the inspector would be fully documented, including collection of physical samples as appropriate. However, when multiple potential violations are observed, time and logistical constraints sometimes require decisions to be made in the field about the extent of documentation that should be collected.

While there are no hard and fast rules for making these judgments, the inspector can prepare for them by being familiar with the particular program's enforcement priorities and how serious the Agency considers various categories of violations.

As a quick guideline when choices must be made in the field, inspectors should increase documentation in proportion to the seriousness of the violation. This is because, stated generally, the likelihood that the Agency will pursue a formal enforcement action -- and the size of the civil penalty assessment, when appropriate -- increases with the seriousness of the violation. The standard of proof required to prove that a violation occurred also increases with the level of enforcement action taken (informal, administrative, judicial). Likewise, the likelihood of a challenge to the Agency's action increases with the level of enforcement action and size of penalty assessment.

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[1] Factors other than gravity (e.g., economic benefit, compliance history, recalcitrance, culpability, ability to pay, litigation considerations) are also considered in determining penalty amounts. The gravity factor, however, is the most relevant to the inspector.

Factors Affecting Gravity of Violations

In a penalty policy, categories of violations are often ranked according to their seriousness, considering the following factors:

- Actual or possible harm. This factor focuses on whether the activity of the violator actually resulted or was likely to result in a discharge or exposure which the regulatory scheme was designed to prevent.

- Importance to the regulatory scheme. This factor focuses on the importance of the requirement to achieving the goal of the statute or regulation. For example, if labeling is the only method used to prevent dangerous exposure to a chemical, then failure to label should result in a relatively high penalty. By contrast, a warning sign that was visibly posted but was smaller than the required size would not ordinarily be considered as serious.

- Availability of data from other sources. The violation of any recordkeeping or reporting requirement is a very serious matter. But if the involved requirement is the only source of information, the violation is far more serious. By contrast, if the Agency has another readily available and cheap source for the necessary information, the violation is less serious.

Beyond the hierarchy of categories of violations within a program, the facts of a particular violation distinguish its seriousness among violations within the category. The factors considered are usually quantifiable, and the information (e.g., data, samples, observations) necessary to support the calculations would ordinarily be collected as part of the inspection. Such factors include:

- Amount of pollutant. The seriousness of the violation may vary according the amount and/or concentration of the pollutant involved in the violation.

- Toxicity of the pollutant. Violations involving highly toxic pollutants are more serious.

- Sensitivity of the environment. This factor focuses on the location where the violation was committed. For example, improper discharge into waters near a drinking water intake or recreational beach is usually more serious than discharges not near any such use.

- Length of time a violation continues. In most circumstances, the longer a violation continues uncorrected, the greater the risk of harm.

Significant Noncompliance

Each program has defined what is considered to be significant noncompliance with requirements. As a means to assure that significant noncompliance is addressed in a timely and appropriate manner, the programs have also established goals and time frames for action in these (and some other) cases; progress is closely tracked.

CHAPTER 4

ORGANIZATIONAL STRUCTURE FOR COMPLIANCE AND ENFORCEMENT

Environmental compliance and enforcement activities take place within a complex organizational structure involving many offices in EPA Headquarters and the Regions, the U.S. Department of Justice, and State environmental agencies. This chapter contains a summary of the role of the principal EPA offices involved and a discussion of the Federal-State relationship in compliance and enforcement efforts.

4A EPA ORGANIZATION

Because inspections are pivotal in EPA's regulatory efforts, inspectors cooperate with many units of the Agency. Those with which inspectors work most often are described below. Together, these constitute the organizational structure for EPA's compliance and enforcement activities.

EPA Headquarters

The Headquarters offices develop national policy guidance and regulations for all programs and prepare EPA's annual Budget and Operating Year Guidance.

- Office of Air and Radiation, which addresses stationary sources, mobile sources, and radiation.

- Office of Water, which addresses municipal pollution control, National Pollutant Discharge Elimination System (NPDES), wetlands, marine and estuarine protection, ground water, and drinking water.

- Office of Solid Waste and Emergency Response, which addresses emergency and remedial response (known as Superfund), hazardous and solid waste, and underground storage tanks.

- Office of Pesticides and Toxic Substances, which addresses pesticides and toxic substances.

- Office of Enforcement and Compliance Monitoring (OECM). This office advises the program offices on enforcement and manages EPA's litigation program. The principal units in OECM of concern to inspectors are:

  - Deputy Assistant Administrator for Civil Envorcement/Associate Enforcement Counsels (AEC). There are four AECs, each assigned to one of the four major media programs and parallelling the program offices listed above. Each AEC has a staff of attorneys specializing in enforcement for the assigned program.

  - Office of Compliance Analysis and Program Operators. This office is responsible for oversight of the Agency's compliance and enforcement in all media. Its functions include overall program management and support; strategic planning, enforcement policy, and evaluation; program accountability and analysis; contractor listing; and training.

  - National Enforcement Investigations Center (NEIC). NEIC is a national technical resource and investigative unit for EPA civil and criminal enforcement. Within NEIC is the Office of Criminal Investigation (OCI), which maintains a staff of trained criminal investigators who are deputized U.S. Marshals. There are OCI investigators in each EPA Region who work closely with the Regional Counsel's office and Assistant U.S. Attorneys in investigating and prosecuting environmental criminal cases. NEIC also maintains expertise on the adequacy and validity of scientific and technical evidence, including data collection and analysis. Although it is based in Denver, NEIC is part of EPA Headquarters.

  - Deputy Assistant Administrator for Criminal Enforcement/Office of Criminal Enforcement Counsel (OCEC). This office provides legal support to the program offices and OCI regarding criminal investigations, it provides support to the Department of Justice on environmental criminal cases, and it advises EPA Headquarters offices on criminal enforcement aspects of regulations and statutes.

- Office of Administrative Law Judges. Officially a part of the Administrator's office, this unit contains the administrative law judges (ALJs) who rule on administrative enforcement cases. ALJs are located at Regional and Headquarters offices.

- Office of Research and Development. This office provides a wide range of research and development support to the regulatory standard setting and enforcement functions of the Agency. The EPA laboratories that analyze samples from inspections are part of this office.

Regions

EPA's ten Regional offices manage EPA programs in the field. Where a program has been delegated to the State, the Region oversees the State's performance to assure consistency with the law. Programs not delegated to the State are operated by the Region directly. Three organizational units in each Region are especially relevant to inspections:

- Program Divisions. These carry out their assigned specific media programs at the Regional level. They conduct inspections and initiate administrative enforcement actions. While Regional organization varies somewhat, a typical structure would include:

  - Air Management Division: air, radiation, pesticides and toxic substances (sometimes also waste management, where no separate division exists).

  - Waste Management Division: hazardous waste and Superfund.

  - Water Management Division: all water programs.

- Environmental Services Division. This unit supports the work of the program divisions by collecting and evaluating environmental quality data, conducting inspections, and performing supporting laboratory work. It also carries out emergency response activities for hazardous substances.

- Regional Counsel. This office gives legal advice to the Regional program divisions on enforcement cases and other matters, and it conducts litigation. One important function of the Regional Counsel is preparing cases for referral to the Department of Justice, when EPA is recommending litigation in the U.S. Courts. The office also assists program divisions in drafting permits, administrative orders, and notices of violation.

- Location of EPA Regional Offices.

Region I -- Boston, MA
Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont

Region II -- New York, NY
New Jersey, New York, Puerto Rico, Virgin Islands

Region III -- Philadelphia, PA
Delaware, Maryland, Pennsylvania, Virginia, West Virginia, District of Columbia

Region IV -- Atlanta, GA
Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee

Region V -- Chicago, IL
Illinois, Indiana, Michigan, Minnesota, Ohio, Wisconsin

Region VI -- Dallas, TX
Arkansas, Louisiana, New Mexico, Oklahoma, Texas

Region VII -- Kansas City, KS
Iowa, Kansas, Missouri, Nebraska

Region VIII -- Denver, CO
Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming

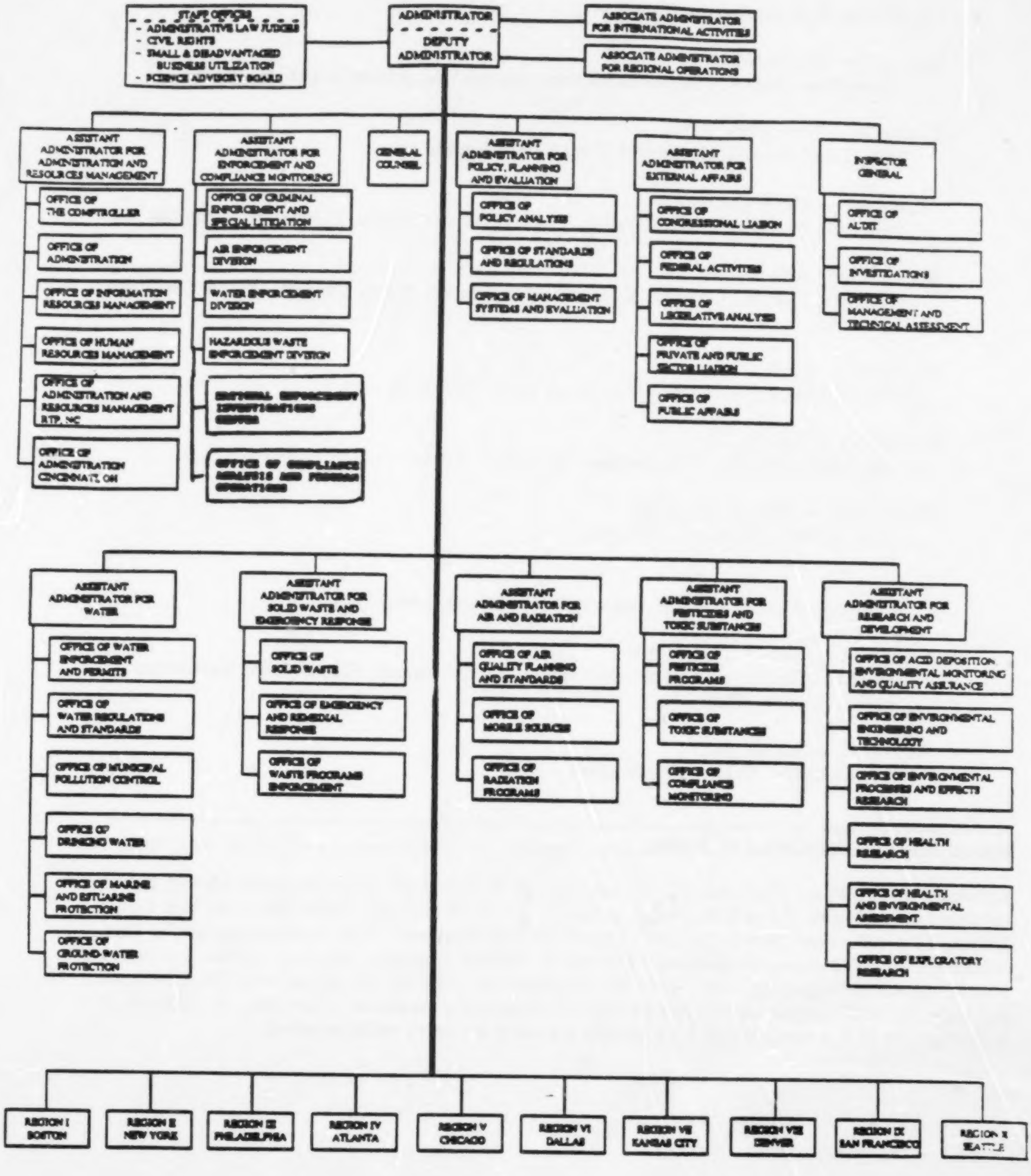
Region IX -- San Francisco, CA
Arizona, California, Hawaii, Nevada, American Samoa, Guam Trust Territories of Pacific Islands, Wake Island

Region X -- Seattle, WA
Alaska, Idaho, Oregon, Washington

Role of the U.S. Department of Justice

Although not a part of EPA, the U.S. Department of Justice (DOJ) plays a crucial role in EPA's enforcement activities. When EPA wishes to pursue a civil or criminal action under the U.S. Court system, EPA refers the case to the DOJ, recommending litigation. This recommendation is then considered by DOJ attorneys specializing in environmental litigation, and DOJ makes a decision whether or not to litigate the case. While in such litigation, DOJ legally represents EPA; EPA legal and technical staff (including inspectors) also remain actively involved in the case. In addition, it is through the U.S. attorneys that EPA obtains warrants for entry when required.

U.S. ENVIRONMENTAL PROTECTION AGENCY


STAFF OFFICES
- ADMINISTRATIVE LAW JUDGES
- CIVIL RIGHTS
- SMALL & DISADVANTAGED BUSINESS UTILIZATION
- SCIENCE ADVISORY BOARD
ADMINISTRATOR
DEPUTY ADMINISTRATOR
ASSOCIATE ADMINISTRATOR FOR INTERNATIONAL ACTIVITIES
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OFFICE OF THE COMPTROLLER
OFFICE OF ADMINISTRATION
OFFICE OF INFORMATION RESOURCES MANAGEMENT
OFFICE OF HUMAN RESOURCES MANAGEMENT
OFFICE OF ADMINISTRATION AND RESOURCES MANAGEMENT RTP, NC
OFFICE OF ADMINISTRATION CINCINNATI, OH
ASSISTANT ADMINISTRATOR FOR ENFORCEMENT AND COMPLIANCE MONITORING
OFFICE OF CRIMINAL ENFORCEMENT AND SPECIAL LITIGATION
AIR ENFORCEMENT DIVISION
WATER ENFORCEMENT DIVISION
HAZARDOUS WASTE ENFORCEMENT DIVISION
NATIONAL ENFORCEMENT INVESTIGATIONS CENTER
OFFICE OF COMPLIANCE ANALYSIS AND PROGRAM OPERATIONS
GENERAL COUNSEL
ASSISTANT ADMINISTRATOR FOR POLICY, PLANNING AND EVALUATION
OFFICE OF POLICY ANALYSIS
OFFICE OF STANDARDS AND REGULATIONS
OFFICE OF MANAGEMENT SYSTEMS AND EVALUATION
ASSISTANT ADMINISTRATOR FOR EXTERNAL AFFAIRS
OFFICE OF CONGRESSIONAL LIAISON
OFFICE OF FEDERAL ACTIVITIES
OFFICE OF LEGISLATIVE ANALYSIS
OFFICE OF PRIVATE AND PUBLIC SECTOR LIAISON
OFFICE OF PUBLIC AFFAIRS
INSPECTOR GENERAL
OFFICE OF AUDIT
OFFICE OF INVESTIGATIONS
OFFICE OF MANAGEMENT AND TECHNICAL ASSESSMENT
ASSISTANT ADMINISTRATOR FOR WATER
OFFICE OF WATER ENFORCEMENT AND PERMITS
OFFICE OF WATER REGULATIONS AND STANDARDS
OFFICE OF MUNICIPAL POLLUTION CONTROL
OFFICE OF DRINKING WATER
OFFICE OF MARINE AND ESTUARINE PROTECTION
OFFICE OF GROUND-WATER PROTECTION
ASSISTANT ADMINISTRATOR FOR SOLID WASTE AND EMERGENCY RESPONSE
OFFICE OF SOLID WASTE
OFFICE OF EMERGENCY AND REMEDIAL RESPONSE
OFFICE OF WASTE PROGRAMS ENFORCEMENT
ASSISTANT ADMINISTRATOR FOR AIR AND RADIATION
OFFICE OF AIR QUALITY PLANNING AND STANDARDS
OFFICE OF MOBILE SOURCES
OFFICE OF RADIATION PROGRAMS
ASSISTANT ADMINISTRATOR FOR PESTICIDES AND TOXIC SUBSTANCES
OFFICE OF PESTICIDE PROGRAMS
OFFICE OF TOXIC SUBSTANCES
OFFICE OF COMPLIANCE MONITORING
ASSISTANT ADMINISTRATOR FOR RESEARCH AND DEVELOPMENT
OFFICE OF ACID DEPOSITION, ENVIRONMENTAL MONITORING AND QUALITY ASSURANCE
OFFICE OF ENVIRONMENTAL ENGINEERING AND TECHNOLOGY
OFFICE OF ENVIRONMENTAL PROCESSES AND EFFECTS RESEARCH
OFFICE OF HEALTH RESEARCH
OFFICE OF HEALTH AND ENVIRONMENTAL ASSESSMENT
OFFICE OF EXPLORATORY RESEARCH
REGION I BOSTON
REGION II NEW YORK
REGION III PHILADELPHIA
REGION IV ATLANTA
REGION V CHICAGO
REGION VI DALLAS
REGION VII KANSAS CITY
REGION VIII DENVER
REGION IX SAN FRANCISCO
REGION X SEATTLE

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4B THE FEDERAL-STATE RELATIONSHIP

Virtually every environmental statute provides for EPA delegation to or approval of State (and in some cases local) programs to implement national standards and regulations through State-specific rules, permits, and enforcement activities.

Enforcement is perhaps the most complex and sensitive aspect of EPA's relationship with State governments, given that EPA retains parallel and overall responsibility -- including enforcement responsibility -- even when a program is delegated or approved. This means that while States have primary responsibility for compliance and enforcement actions within delegated or approved States, EPA retains overall responsibility for ensuring fair and effective enforcement of Federal requirements and a credible national deterrent to noncompliance.

An effective State/Federal partnership is critical to accomplishing the shared goals of achieving and maintaining a high level of compliance with environmental laws and regulations. However, the partnership is particularly difficult given the understandable desire by States to run their programs as independently as they can from EPA. On occasion there are differences in philosophy and perspectives as to what is needed to achieve compliance.

At this time, States conduct some 80% to 90% of all compliance inspections under delegated or approved programs. EPA may also conduct inspections in a delegated or approved program State. An agreement between EPA and the State sets the protocols for EPA conduct of inspections in the State, covering inspections in which both EPA and the State participate and inspections which EPA conducts independently.

The EPA inspector plays an important role in the EPA/State relationship. Effective communication between the EPA inspector and the State fosters cooperation, promotes technology transfer, and improves the overall enforcement effort at both Federal and State levels. This section discusses aspects of the Federal/State partnership of particular interest to inspectors.

State/EPA Enforcement Agreements

To establish a more effective partnership in enforcement, EPA and the States have developed State-specific enforcement agreements reflecting the criteria and standards EPA will use in its oversight of State programs (or EPA Regions where they administer the program). The agreements also reflect EPA's criteria for direct enforcement in delegated States, protocols for advance notification and consultation and specify the data the State will report to EPA.

EPA's policy on these agreements was issued in a document inspectors should be familiar with -the "Revised Policy Framework for State/EPA Enforcement Agreements" (1986). It can be obtained from Regional program managers or from the Office of Enforcement and Compliance Monitoring in Headquarters.

The Policy Framework spells out basic criteria to be used in developing the State/EPA Enforcement Agreements. Several of these criteria are directly relevant to inspections and are summarized below.

It is important to note that there is no single document called a "State/EPA Enforcement Agreement." Rather, each Region and program was encouraged to embody the principles and substance in existing documents and processes already in use. Program managers in each Region should be able to explain protocols and others aspects of the agreement for each State and program.

Assessing a Compliance Monitoring Program

One of the criteria for defining good performance establishes standards both EPA and the States should strive to achieve for accurate and reliable compliance monitoring.

The two factors used in assessing the success of a compliance monitoring program are coverage and quality. Some of the principal components of these factors relevant to inspections are:

- Coverage - Each program's strategy should strike a balance between: (1) breadth, to substantiate the reliability of compliance statistics and establish a Federal or State enforcement presence, and (2) targeting, to check those facilities most likely to be out of compliance or those violations presenting the greatest environmental or human health risk. States and/or EPA Regions should have a written inspection strategy, reviewed and updated regularly, addressing how the inspections will most effectively reach priority concerns and potential noncompliers. The strategy will be assessed on whether it embodies the appropriate mix of categories of inspections, frequency and level of detail.

- Quality - Inspectors should be able to determine accurately the nature and extent of violations, and their documentation of inspection findings should be timely, complete, and able to support later enforcement responses. Each program should define minimum standards for quality assurance of compliance monitoring data including essential lab analysis and chain of custody issues.

Direct Federal Enforcement in Delegated/Approved States

The Policy Framework document cites several factors EPA will consider before taking direct enforcement action in a delegated State. Generally, EPA might directly enforce cases in which:

- A State requests EPA action;

- State enforcement response is not timely and/or appropriate;

- There are national legal or program precedents involved; or

- There is a violation of an EPA order or consent decree.

Each program has adopted a definition of what constitutes "timely and appropriate" enforcement response, and these may be adapted to State-specific considerations in the State/EPA Enforcement Agreements.

Other factors which EPA considers before taking direct enforcement action in a delegated State are:

- Cases specifically designated as nationally significant (e.g., significant noncompliers, explicit national or Regional priorities);
- Significant environmental or public health damage or risk involved;
- Significant economic benefit gained by a violator;
- Interstate issues (multiple States or Regions); and
- Repeat patterns of violations and violators.

In addition to the nationally defined priorities, there are State-specific environmental problems deserving of State and Federal enforcement priority. The State-EPA Enforcement Agreements identify these priorities and any need for coordinated and targeted enforcement response.

EPA Inspections in Delegated/Approved States

As discussed above, EPA would not ordinarily conduct routine inspections in a State with an approved or delegated program. EPA might join the State on a routine compliance assessment inspection, on an information-gathering inspection in support of the permit issuance process, or on an inspection to collect additional evidence for EPA's own enforcement case development. The State might also request EPA to perform an independent inspection for any of these reasons. Sometimes an independent EPA inspection is needed to support a particular Federal enforcement or permit action. In some situations, both Federal and State enforcement actions are contemplated, so both EPA and the State need to be involved in the inspection.

Routine Inspections to Assess Compliance Status

Routine inspections would be the primary responsibility of the administering agency, in this case the State. There would be little reason for EPA to conduct such inspections unless requested to do so by the State.

Case Development

In any of the instances in which EPA may take direct enforcement action in a delegated or approved State, EPA inspections may be required to develop EPA's enforcement action.

Follow-up Inspections to Prior EPA Enforcement Actions

EPA inspectors may need to confirm compliance with EPA administrative or judicial consent decrees and orders where State inspections cannot be relied upon to do so.

Oversight Inspections

One reason that EPA may conduct inspections in a delegated or approved State is to carry out the Agency's responsibility for oversight of the quality and effectiveness of the State program. The purpose of oversight inspections is to identify needs and opportunities for strengthening the State's capability in conducting compliance monitoring activities. Oversight inspections are used to evaluate how effectively States are identifying violations, using approved inspection and sampling techniques, and providing for overall quality control.

Oversight inspections can take one of three basic forms: (1) EPA and State personnel conduct a joint inspection, with each carrying out aspects of the inspection; (2) EPA may observe -- but not be an active participant in -- a State inspection, or (3) EPA may conduct its own inspection and compare results with the results of a recent State inspection.

Federal Enforcement Presence

Some programs, such as NPDES, require Federal inspections at approximately 20% of major permittees each year to establish a Federal presence in the national program (once in the 5-year life of the permit). These inspections also serve the purpose of oversight inspections.

Training of EPA/State Staff

One of the key reasons that EPA might be involved in inspections in a delegated or approved State is to receive or provide training.

For EPA personnel, sometimes an EPA manager will send a new EPA inspector into the field to provide training. When new regulations are issued, or a new type of process or facility is being regulated, more experienced EPA inspectors might go into the field for training purposes.

Sometimes, EPA's oversight of a State program identifies deficiencies in the quality of inspections. Often, States specifically request training for their inspectors from EPA. In these situations, EPA participates in State inspections for training and technology transfer purposes.

Oversight Inspections: Special Considerations

Oversight inspections are defined as those inspections for which EPA is evaluating State program performance. They are undertaken for the purpose of evaluating the quality of State inspection activities, identifying both strengths and weaknesses and identifying together steps that can be taken to improve any weaknesses on the part of an individual inspector and an entire program. Given the sensitivity of the Federal-State relationship, success in carrying out oversight inspections depends largely on the quality of communications between EPA and the State.

Establishing Clear EPA and State Expectations

- Selecting candidates for oversight inspections. Advance understanding of what situations will be selected for oversight inspections is important if the State is to fully utilize the information to improve its program. The State and EPA should discuss specific inspection types, industries, and settings which are critical to the success of the State program and try to pursue oversight inspections in those areas.

- Establishing roles and responsibilities. Oversight inspections can take many forms: joint inspections; EPA observation while the State conducts an inspection; or State observation during or following an EPA inspection after which EPA compares its findings to State inspection reports. Therefore, the State and EPA need to decide in advance:
  - Who conducts the inspection;
  - Who writes the inspection report;
  - Who follows up with enforcement response;
  - How deficiencies will be identified, corrected, and follow-up action undertaken.

Creating a Constructive Environment

The Policy Framework also prescribes basic principles for EPA's oversight procedures, with particular reference to oversight inspections. Among them are these points particularly important to inspectors:

- Positive oversight findings should be stressed as well as negative ones.

- Positive steps that can be taken to build the inspection capability of State programs should be emphasized. This should be done by providing technical assistance and training -- by EPA staff to the extent possible.

- Inspection feedback between the States and EPA should be a two-way street. The States should be given an opportunity to comment on EPA's performance.

- EPA should use the oversight process as a means of transferring successful Regional and State inspection approaches from one Region or State to another.

- To the extent possible, inspection files to be audited should be identified in advance, with some provisions for random review of a percentage of other files if necessary.

- Experienced inspection personnel should be used to conduct oversight inspections. EPA staff should be used to the extent possible to build relationships and expertise.

- EPA should hold an exit interview with State staff, provide ample opportunity for discussion of findings, and allow States to comment on and identify corrective steps based upon a review draft of the written report.

- Opportunity should be made for the staffs which interact on enforcement cases and oversee State performance to meet personally rather than rely solely upon formal communications. This applies to both technical and legal staffs.

Implications for the Conduct of EPA Inspections

The State/EPA enforcement relationship has several implications for the conduct of an inspection by EPA, and for conduct of oversight inspections in particular.

Given the complex and sometimes sensitive relationship between EPA and the States with regard to compliance and enforcement matters, it is essential that EPA consult and coordinate with State personnel before conducting an inspection in a delegated or approved State.

Protocols for advance notification and consultation are a part of the State-EPA Enforcement Agreement.

A policy of "no surprises" is the centerpiece of EPA's effort to ensure the productive use of limited Federal and State resources and an effective working partnership. Enforcement Agreements unique to each State and program define protocols for advance notification and consultation on both intended EPA inspections and enforcement actions. This includes:

- Who should be notified of proposed/planned Federal inspections;
- How the State will be notified (e.g., sharing of lists, phone calls, etc.); and
- When they will be notified (i.e., at what point in the process).

The Policy Framework sets a high standard for consultation and sharing with States the information derived from EPA inspections. The timing and form of notification and consultation should enable State and Federal agencies to properly coordinate and schedule site inspections where appropriate, whether or not a particular State program is officially delegated or approved.

The Enforcement Agreements also set forth a process to share, as soon as practicable, inspection results, monitoring reports, and evidence (including testimony) where applicable for Federal and/or State enforcement proceedings.

Preparation for Inspections

In preparing for an inspection, the EPA inspector should:

- Know the delegation or approval status of the State program;
- Know the effect of State laws and requirements on Federally enforceable requirements;
- Know the results of prior State inspections and compliance monitoring;
- Plan and consult with the State prior to conducting the inspection, and in most instances, offer an opportunity for the State to join the inspection; and
- Know the purpose of the inspection and communicate the purpose to the State.

Follow-up

Follow-up is key to achieving positive benefits from the oversight inspection. In the exit interview, and during the sharing of draft reports on the results of the oversight inspection, the EPA inspector should distinguish strengths and weaknesses of the performance of the particular inspector from those which may represent strengths or weaknesses in the State inspection program as a whole. It is also important to distinguish the important from the unimportant. Finally, for identified areas of weaknesses, it is important to reach agreement with the State as to what they are and to identify options for correcting them (e.g., such as training or altering procedures).

Ultimately, it is a strong relationship of mutual respect among peers that will enhance the conduct of both State and Federal inspections. There is much to learn from both perspectives, particularly since State inspectors are closest to the source and most familiar with plant operations.

CHAPTER 5

ROLE OF THE INSPECTOR/FIELD INVESTIGATOR[1]

While EPA and States have thousands of employees working in various ways to carry out the environmental laws, the inspector is the keystone of the entire effort. All the Agency's efforts in studying environmental problems and developing policies and regulations would be pointless if there were no inspectors in the field to check compliance. And there could be no enforcement actions against violators without the information and evidence collected by inspectors.

The inspector is a guardian of the public. Without the inspector on the scene, practices that violate environmental regulations would continue to release substances jeopardizing human health and the environment. The inspector observes such violations, enabling EPA or State officials to halt them.

The inspector is the only person who regularly appears on behalf of EPA at regulated facilities. The inspector's presence dramatically symbolizes EPA's role as a public agency looking over the shoulder of the facility manager. The knowledge that an inspection could occur at any time encourages managers to keep their operations in compliance.

EPA's staff of enforcement specialists depends on the inspector's work. Action to get violations corrected begins upon submission of the inspector's report and the evidence he or she collected. The inspector's work must meet the highest standards for ultimate success in an enforcement action. An inspector's failure to substantiate what he or she saw may mean that EPA cannot take the case to court and win a large penalty, instead settling for a lesser action that has little impact on the violator. When the inspector's work is done well, it can mean victory in court and penalties that will deter many other potential violators.

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[1] As used in this text, the term "inspector" includes all field personnel who collect information that may lead to or support an enforcement action. While the focus of the text is on the conduct of compliance inspections at facilities and sites subject to EPA requirements, the majority of the material is also relevant to other types of compliance/enforcement investigations.

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5A INSPECTOR RESPONSIBILITIES

Inspector Responsibilities

The inspector's fundamental mission is to examine the environmental affairs of a single regulated source. This involves the following responsibilities:

- Official Representative. The inspector is a representative of EPA and is often the only Agency official the plant manager and facility workers will ever see in person. In dealing with these facility employees, the inspector must be dignified, tactful, courteous, and diplomatic. The inspector's technical competence and know-how reinforce the credibility of EPA. Equally important is the manner in which the inspector explains the purpose of the visit, what the requirements are, and why the facility should comply with them.

- Fact-Finder. The inspector assesses whether the facility is in compliance with the laws and regulations and with any relevant environmental permits. The inspector must be skilled in obtaining the critical information that is necessary for EPA to determine compliance or noncompliance. Often the key pieces of information are not easy to see and go beyond the standard data from stack tests, effluent samples, temperature readings, and the like. A skilled inspector has developed the ability to obtain significant information through conversation with facility employees and knows how to follow up on these leads. When a facility is found to be not in compliance, the inspector may also be responsible for identifying the cause of the problem.

- Enforcement Case Developer. The inspector collects and preserves evidence of noncompliance for use in enforcement actions. The inspection is usually the primary basis for the government's case both in administrative and judicial enforcement actions. The documentation in the inspection report and the inspector's field notes can make or break a case. The same is true of samples taken during the inspection. Without good documentation by the inspector, even the most thorough inspection may be useless for enforcement purposes. But an expertly prepared inspection report with its associated samples can be highly persuasive to a judge, a jury, or an administrative law judge. The inspector is often the key witness for the government in an enforcement proceeding.

- Enforcement Presence. The inspector "shows the flag," creating a visible, credible presence of the interest and power of government in the eyes of particular managers at a particular site. More important, the inspector's presence casts a wide shadow over other regulated facilities, whose managers are deterred from violating the environmental requirements because they know that an inspector may visit their facility, too. Enforcement, as personified in the inspector, is the underlying motivator for those managers who would not otherwise be concerned about keeping their facilities in compliance.

- Technical Educator. The inspector serves as a source of regulatory information, and tactfully provides technical assistance to facility managers by directing them to useful sources of information relevant to problems observed at the facility. The inspector may discuss remedial actions that might be explored and may refer questions and problems to other EPA or State personnel with pertinent expertise. However, the inspector does not give advice, as this could jeopardize future enforcement action.

- Technical Authority. Inspectors are frequently called upon to help the Agency interpret regulatory requirements, assess the adequacy of control measures, interpret technical data, and assess environmental impacts.

Inspector Training Requirements

EPA inspectors are subject to the training requirements embodied in EPA Order 3500.1, Training and Development for Compliance Inspectors/Field Investigators. The Order establishes an Agency-wide training program designed to prepare inspectors, first-line supervisors, and contractors for conduct of technically and legally sound inspections for compliance and enforcement purposes. Inspectors must complete training in basic curricula and minimum program-specific curricula before performing independently or leading an inspection. Inspectors are also subject to training requirements under the occupational safety and health orders as described below.

Basic Training Course

This text covers legal, technical, administrative, and communications topics associated with conducting compliance inspections in all EPA programs. The text supports a classroom training program. The basic curricula for inspectors also encompasses training required in health and safety procedures and respiratory protection under EPA Orders 1440.2 and 1440.3, described below. Completion of these courses will satisfy the basic training curriculum requirement.

Program-Specific Training

The program-specific minimum curriculum for each major environmental program covers legal, technical, and programmatic subjects necessary to prepare an inspector/investigator to lead specific types of inspections, to recognize violations, and to properly obtain information and evidence. The following programs have or will develop such curricula: Air-Stationary Sources, Air-Mobile Sources, CERCLA, NPDES, Pesticides, Toxics, PWSS, RCRA, UIC, and Wetlands. Some programs have or plan to develop more specialized training.

Occupational Safety and Health

All EPA employees who do field work are subject to EPA Order 1440.2 which establishes basic, intermediate, advanced, and refresher requirements for occupational health and safety training. The specific training requirements that apply depend on the degree of anticipated hazard, but must be completed before going into the field. In addition, EPA compliance inspectors/field investigators must meet requirements, where these apply, of EPA Order 1440.3 for respiratory protection.

5B ETHICS

The integrity and professional impartiality of an inspector are crucial, because any of the inspector's findings that identify problems can be subject to challenge by the regulated party. Enforcement actions based upon the inspector's work may represent a major commitment of the Agency's funds and time, yet success before an administrative law judge or a U.S. Court may hinge upon the inspector's freedom from bias or even apparent bias. This gives the highest importance to the inspector's compliance with regulations governing conflict of interest and ethics.

Inspectors should familiarize themselves with the laws and regulations concerning conflict of interest and ethics. Helpful material has been published by EPA's Designated Agency Ethics Official, in the Office of General Counsel. Each EPA office has a designated Deputy Ethics Official, who is available to discuss confidentially any questions an employee may have as to how these regulations apply to his or her situation.

Conflict of Interest

The Federal law 18 U.S.C. Section 208(a) bars a Federal employee from participating in any proceeding in which the employee (or spouse or minor child or others with whom the employee has specified relationships) has a financial interest, regardless of size. The penalties for violating this law may be as much as $10,000 fine and two years imprisonment. The prohibited relationships include certain roles in nonprofit organizations and relationships with potential employers, as well as ownership of stocks, bonds, etc.

Standards of Conduct

EPA's regulations at 40 CFR Part 3 set forth restrictions and requirements concerning actions that create an appearance of impropriety, outside employment, and similar matters. Under these regulations, employees must avoid any action that might result in or create the appearance of:

- Using public office for private gain.
- Giving preferential treatment to anyone.
- Impeding Government efficiency or economy.
- Losing independence or impartiality.
- Making a Government decision outside official channels.
- Adversely affecting public confidence in the integrity of the Government or of EPA.

Questions Frequently Asked About Inspections

Topics concerning conflict of interest and ethics that are often raised in connection with inspections are the following:

- Gifts, Favors, Luncheons. Inspectors must avoid accepting favors or benefits under circumstances that might be construed as influencing the performance of official duties. EPA regulations provide an exemption whereby an inspector could accept food and refreshments of nominal value on infrequent occasions in the ordinary course of a luncheon or dinner meeting or other meeting, or during an inspection tour. Inspectors should use this exemption only when absolutely necessary, such as at remote locations where public eating places are not available.

- Use of Information. All information acquired in the course of an inspector's duties is for official use only and cannot be mentioned to those outside the Agency. Information that has not been made available to the general public (even if it would be made available on request) cannot be used to further a private interest. Inspectors should not speak of any product, manufacturer, or person in a derogatory manner.

- Vehicles. Motor vehicles owned, leased, or rented by the Government may not be used for non-official purposes.

Where to Seek Advice

Guidance on the ethics laws and regulations is available from EPA's ethics officials. Almost every situation that could arise in an inspector's work has already been considered by these officials in response to earlier inquiries from inspectors, so they are prepared to answer most questions promptly. To seek advice, an inspector should do either of the following:

- Consult the Deputy Ethics Official for the inspector's duty unit. This would be the Office Director, Staff Office Director, Laboratory Director, Regional Administrator, or Deputy Regional Administrator. The Regional Counsels serve as Deputy Ethics Officials for their offices.

- Call the Office of General Counsel or Office of Regional Counsel for legal advice or referral to the Designated Agency Ethics Official or Alternate Agency Ethics Official.

5C CONFIDENTIAL INFORMATION

The very nature of inspections involves inspectors gaining access to and collection of information that companies would not ordinarily make available to outsiders. It is the inspector's responsibility to follow proper security measures in handling inspection data both while on the road and in the office. Unauthorized disclosure of confidential information could result in disciplinary action or even criminal sanctions.

The environmental statutes require regulated parties to keep reports and records. The statutes also require EPA to protect the trade secrets and confidential information of the regulated community. During the course of inspection, inspectors will encounter information which may be entitled to confidential treatment under provisions of the various EPA statutes and regulations at 40 CFR Part 2, Subpart B.

Confidential information includes such information as process, formulation, sales, and production data that could damage a company's competitive position if it became publicly known. By statute, effluent data and emissions data are not confidential. There are procedures and criteria for challenging a company's claim that a particular piece of information is entitled to confidential treatment. Even when it is unlikely that a confidentiality claim will be upheld (e.g., effluent or emissions data), it is considered prudent to treat any information claimed confidential as such until a determination can be made by the Regional Counsel (or General Counsel) as to its entitlement to such treatment.

Information collected during an inspection would be made available in response to a Freedom of Information Act (FOIA) request unless the information were determined to be exempt from release under strict FOIA criteria. However, if the data have been claimed confidential by the company, EPA would follow certain procedural steps prior to release of the information and the data would not be released at all if it was determined to be entitled to confidential treatment.

Because of the additional security measures involved in handling confidential information as well as the potential risks of accidental disclosure, EPA's general policy is not to accept confidential information unless it is necessary for carrying out Agency functions.

Obtaining Confidential Information

EPA statutes and regulations require that companies be informed of their right to claim information requested by the Agency as confidential. A request for company information must contain a statement allowing the facility to designate all or part of the information requested as confidential by marking it according to 40 CFR Part 2, Subpart B.

In addition to citing appropriate regulation(s), the request should state that:

> The business may, if it desires, assert a business confidentiality claim covering part or all of the information in the manner described by 40 CFR 2.203(b), and that information covered by such a claim will be disclosed by EPA only to the extent, and by means of the procedures, set forth in these regulations; and
>
> If no such claim accompanies the information when it is received by EPA, it may be made available to the public by EPA without further notice to the business.

In accord with the policy stated above, an inspector should generally not accept confidential information unless it is important to the purposes of the inspection.

If a company makes a confidentiality claim during an inspection that appears to be unfounded, the inspector may try to convince the company to drop the claim. If they do not do so, however, the inspector must treat the information as confidential until the Regional Counsel or General Counsel advises otherwise.

In cases where confidential information is obtained, company officials should be requested to mark the document to identify the specific material which they claim is entitled to confidential treatment. Confidentiality claims which cover portions of otherwise non-confidential documents should be clearly identified by company officials.

When an inspector expects to obtain or observe confidential information, he or she should maintain a separate notebook. When confidential information is entered into an inspector's logbook, the entire logbook must be treated as confidential; the cover and all pages containing confidential information must be marked "Confidentiality Claim."

Security Measures

Security measures must be taken to protect all inspection data (including documents, samples, field notes, and other documentation) collected by the inspector. The information must be protected because:

- The very nature of an enforcement investigation assumes the possibility that some legal action might result.
- Any inspection involves the collection of information that a firm would not ordinarily make available to outsiders.

Security measures while on travel and in the office are discussed in detail in Chapters 18B and 19B, respectively. Their intent is summarized below.

- Routine Security Measures. Routine security measures will help ensure that reasonable precautions are taken to prevent unauthorized persons from viewing confidential information. When practical circumstances prohibit the inspector from following the procedures exactly, the inspector is expected to take steps for protection of the information that will achieve this objective.

- Confidential Information Security Measures. In addition to the routine security measures which are always taken with regard to inspection data, the declaration of certain information as confidential imposes a further layer of security procedures designed to control access to the information within the Agency.

  All confidential information must be marked as such and placed in a locked filing cabinet or a safe immediately following the completion of the inspection. A chain of custody record must be maintained for all confidential information.

  While Regional and office policies may vary with regard to who can provide the authorization (e.g., Regional Administrator, Division Director, Branch Chief), only authorized persons can have access to confidential information.

TSCA Confidential Business Information (TSCA-CBI)

While each of EPA's statutes requires EPA to protect confidential information, Section 14 of TSCA and implementing regulations require the Agency to take special steps to limit access to information claimed TSCA-CBI. Only persons with explicit authorization and who have signed a "TSCA Confidentiality Agreement" may view TSCA-CBI. In addition, special inspection procedures have been developed to assure that facilities are fully aware of their right to make confidentiality claims and to facilitate protection of this information. Inspectors who expect to conduct inspections under TSCA authority should see the TSCA-CBI Security Manual and TSCA Base Inspection Manual for details.

CHAPTER 6

ENFORCEMENT LITIGATION

EPA has the authority to pursue administrative, civil, and criminal enforcement actions under each of the major statutes administered by the Agency. As described in the discussion of Enforcement Response in Chapter 3C, the degree of rigor involved in developing a case and the standard of proof for a successful government case increases with the severity of the type of action taken.

The bulk of EPA's formal enforcement actions are administrative, that is, they are handled through the Agency's own administrative judicial system. EPA develops and refers more serious noncompliance cases to the Department of Justice for civil litigation through the U.S. Court system. Chapter 6A contains a detailed discussion of the elements of a civil case and the stages of civil litigation in both administrative and judicial settings.

In recent years, there has been a steady increase in the number of criminal cases investigated and pursued by EPA through the Department of Justice. Chapter 6B explains EPA's criminal enforcement program, the special considerations involved in carrying out criminal investigations, and the potential role of EPA inspectors in this effort.

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6A ADMINISTRATIVE AND JUDICIAL CIVIL LITIGATION

While there are many procedural differences between civil administrative and civil judicial litigation, they are substantively similar. The principal procedural difference is the setting in which they occur: administrative cases are heard by the Agency's own administrative law judges; civil judicial cases are tried in the U.S. court system. Administrative cases can be appealed to the United States courts. The types of remedies that can be sought are also similar: under most EPA statutes, the Agency can seek to require correction of the noncompliance as well as civil penalties ("fines") using either administrative or judicial enforcement authorities.

This section explains basic elements involved in pursuing cases under the Agency's administrative and civil judicial enforcement authorities. It was adapted from materials developed by Walter Mugdon, an EPA attorney in Region II.

In civil actions, the case must be proven by a "preponderance" of the evidence (i.e., by the greater weight of the credible evidence); and judgments can include fines and/or injunctive relief. Because criminal investigations and prosecutions involve special considerations, they are covered separately in Chapter 6B.

Historical Perspective on Civil Enforcement

Injunctive Relief

Originally, civil cases could only result in monetary judgments. Past civil cases were usually among citizens, and did not involve the government (e.g., contract disputes). Over time, the concept of "injunctive relief" evolved, which allowed the courts to stop undesirable activities (e.g., stop an inconsiderate citizen from throwing his garbage over the fence into his neighbor's yard). Injunctive relief eventually expanded to require desirable activities to be undertaken (e.g., a homeowner could be ordered to clean the ice off his sidewalk within 24 hours).

Modern government has found in civil cases a good means of influencing citizens to do, or to stop doing, whatever the government wants done, or stopped. Environmental lawsuits are good examples. The government will request a court to order, via injunctive relief, a factory to stop discharging pollutants into the river or to acquire pollution control equipment, or a landowner to remove dredge fill material and restore a wetland area which has been adversely effected by the landowner's illegal activity.

Civil Penalties

The concept of civil penalties also is a relatively new development. Civil penalties are like criminal fines in that they may be imposed for breaking the law, but are less difficult to pursue because of the lighter burden of proof.

In sum, civil injunctive relief cases and civil penalty cases are tailor-made for enforcing EPA regulations. Criminal cases are used as well, but only for the more harmful violations, such as intentional and/or dangerous acts.

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Administrative Enforcement

Enforcement of the law through civil judicial litigation is slow, cumbersome, and costly. Moreover, when the issue is enforcement of environmental requirements, there is substantial scientific or economic complexity. Often judges who handle a variety of cases are not sufficiently familiar with the issues to preside over an environmental case effectively.

In the early 1930s, Congress began giving to the Executive Branch of the government -- that is, the departments and agencies that answer to the President -- authority to directly enforce laws and regulations. Agencies do this through civil "administrative" enforcement. Essentially, the government has created a judicial system within the Executive Branch of the government, outside of the Judicial Branch.

Administrative enforcement cases may result in the imposition of administrative penalties, just as in civil court, and compliance directives that have the same effect as injunctive relief obtained through civil court (e.g., require correction of a problem).

Principal Elements of Civil Litigation

The Theory of the Case

A lawsuit generally consists of three ingredients: (1) facts of violation; (2) the legal duty; and (3) some breach of duty resulting in harm to a person or thing. When these ingredients come together, they create -- or can create -- a cause of action. The theory of the case is the succinct answer to the question "What is this case all about?" It is the attorney's opening statement in 25 words or less. It is the program person's statement to the newspaper in 25 words or less.

The theory of the case is that evolving blend of the facts and law from the time that the case begins to be investigated, to the time that the facts are presented at trial (if trial is reached). It is the linchpin around which the discussions between the attorney and the inspector revolve during their teamwork and communication on the case.

As the case develops and the issues become narrowed, the fabric of the theory of the case acquires strength, a pattern arises out of the complexity, and a certain persuasiveness develops. It is a simple concept, but constructing the theory of the case requires substantial time and communication among members of the litigation team, and is essential to successful prosecution of the case.

The Burden of Proof

The burden of proof is distinguished from the standards of proof (discussed below). The burden may be best explained by asking the question "Which side has the affirmative duty of persuading and proving something?" Who must "prove or lose" is the question.

The burden, and who has it, depends on the issue. Different parties can have different burdens at different points in the same lawsuit. For example, the company accused of a violation may have the burden of proof pursuant to its motion to suppress certain evidence (i.e., to show "why" the evidence should be suppressed).

The Standards of Proof

The standards of proof simply indicate how well each side must meet its burden on any given issue. The four basic standards of proof are: (1) credible evidence; (2) preponderance of evidence; (3) clear, cogent, and convincing evidence; and (4) evidence beyond a reasonable doubt. These standards are in order of increasing difficulty, and each could apply to different points in the litigation process.

The simplest standard, "credible evidence," merely requires that there be believable evidence to support the judgment. To meet the "preponderance of evidence" standard, one must present not only credible evidence, but the greater weight of such evidence (i.e., "tip the scales").

The third standard -- "clear, cogent, and convincing evidence" -- is clear on its face, but subject to many different definitions. Suffice it to say that it is greater than a preponderance of evidence. Finally, the most difficult standard is "beyond a reasonable doubt." It is not beyond all doubt, but does require the trier of fact to have a reason for any doubt.

With all of these standards of proof, the trier of fact (judge or jury) must not be speculative or swayed by sympathy or prejudice, and must base the decision on all of the facts in the case.

Stages of Civil Litigation

Conception and Preparation

The potential for litigation begins when the inspector walks through the gate or otherwise initiates inspection activity. The inspector must be aware of this potential at all times. It is at the conception and preparation stage that legal and factual investigation and research merge, and the "theory of the case" begins to form.

Pleadings

Pleadings are "letters to the judge." They include the first legal documents which find the appropriate court, name of the court, establish that the court has jurisdiction, name the parties, set forth the allegations and the claims, state what the claim is (i.e., why the court should take action), and begin to set forth the theory of the case.

In civil cases, the government's first pleading is called the "complaint;" the other side's response is the "answer." In civil cases, providing enough information to inform the other side what law has been violated, and a succinct statement as to how, is sufficient for notice pleading. (For criminal complaints, factual detail amounting to probable cause is necessary.)

Pleadings are the first opportunity for each side to stake out positions. Pleadings can be in the alternative, and can be inconsistent.

Discovery

A further expansion of the case occurs during the discovery phase. Discovery has three basic goals:

- To gather further information and avoid trial by surprise;
- To pin down witnesses and parties on the record through written responses or statements; and
- To evaluate the other side's evidence and tactics (including not only what the other side has to say and produce, but also the chemistry between the other side's witnesses and attorneys).

Discovery is perhaps the most important time of litigation, because what happens at this point can control the outcome of the case. It is the time during which each side works at obtaining the facts and at understanding the theory of the case of the other side. It is also the beginning of the contest between the two side's attorneys, and a prelude of things to come.

While there can be considerable strategizing on both sides during this time, it is not unlike poker with hands up, because information, unless exempted (e.g., through attorney/client privilege) is available to both sides. Discovery includes each side sending out documents such as interrogatories and requests for production of documents and samples, and obtaining depositions from key witnesses.

Through interrogatories, which are written questions to which written answers must be provided, each side is able to get the basics from the other side.

Requests for production of documents and samples are not unlike requests to and responses from the government under the Freedom of Information Act, except they are between parties to the litigation.

Depositions are the most powerful tool in the discovery process. The witnesses are under oath, and on the record. The trial teams begin to face each other for the first time, and, unlike other forms of discovery, follow-up questions may be asked by respective counsel in response to the answer just given by the person being deposed. (Chapter 19A contains guidance for inspectors to use in preparing for depositions.)

Teamwork among government legal, enforcement, and technical staff is crucial during discovery. The inspector plays a major role in the process, not only in helping draft the discovery documents that are sent to the other side seeking information, but also in assessing information which is returned.

As discovery expands, the desire of one or both sides to settle may become even stronger. Factors influencing the desire to settle include the cost of continuing to pursue litigation, the risk of losing the case, and the fact that one side's position on the case might prove weak as more elements of its case are discovered.

Motion Practice

Motion practice is the time when each side attempts to narrow the case to the real issues. During this process, each side continues to size up the other, apply leverage, and further push the other to settle. Motions are governed by the Federal Rules of Civil Procedure and can range from attempts to exclude certain factual evidence, to deciding whole issues of law applicable to the case (e.g., through a motion for summary judgment). As with discovery, the inspector plays an important role during motion practice, and may be faced with multiple affidavits.

Trial

Trial is the time during which the two sides present the facts to the trier-of-fact as each side views them. Generally, in civil trials the judge is the trier-of-fact; in criminal trials this can be either judge or jury depending on the desire of the defendant.

The inspector should keep in mind that most litigation work takes place before trial, and that most cases are settled before trial is reached. What is important is that the inspector has done his or her job well, and a satisfactory result has been obtained. The inspector should not be disappointed in not going to trial, because the inspector's work is what makes bringing the other side to settlement possible.

Post-Trial and Appeal

There are post-trial and appeal rights for all sides. At this point in the process, however, only legal issues remain. The facts have been decided. The side that has lost on the facts at the trial level has lost on the facts probably forever. The attorney can, however, argue that the basis for the verdict was flawed (e.g., improperly admitted evidence), and ask the appellate court to overturn the trial court's judgment.

Administrative Enforcement

As discussed earlier, the bulk of EPA's formal enforcement actions are handled through administrative enforcement mechanisms. They are generally governed by Sections 554 and 556 of the Administrative Procedures Act and EPA's Consolidated Rules of Practice under 40 CFR Part 22 depending on the degree of formality and sanction. Administrative enforcement can take two different forms: adjudicatory and non-adjudicatory, but there are many shades of grey between these two extremes.

Adjudicatory Proceedings

The word "adjudicatory" comes from the same root as the word "judge." Adjudicatory proceedings are all characterized by the fact that there is a judge --although he or she may be called by many different names or titles -- who listens to evidence and testimony, and then makes a decision. Adjudicatory proceedings range from very formal to quite informal, but all involve a hearing, or "factual inquiry," of some sort.

- Formal Adjudicatory Proceedings. An Administrative Law Judge (ALJ) presides over the hearing in a formal adjudicatory case. At EPA, ALJs are within the Office of the Administrator. EPA pays their salaries, operational costs, and travel and per diem expenses, there are limitations on firings and performance evaluation. ALJs are full-time, professional judges. They must have at least five years of litigation experience to be eligible to be hired.

  The formal hearing is in every respect a "trial." It is governed by detailed rules of procedure. The judge is addressed as "Your Honor," and attorneys examine and cross-examine witnesses who testify under oath. Briefs may be submitted, and attorneys make motions and arguments. A verbatim transcript is maintained, and the Administrative Law Judge renders a recommended decision based on the evidence presented.

- Informal Adjudicatory Proceedings. Instead of an Administrative Law Judge, informal cases are heard by a Hearing Officer or Presiding Officer. The Officer does not have to be a professional judge, but often must be an attorney. In other cases, the Officer can be any agency employee, whether or not he or she has legal training.

  Typically, there are fewer and less detailed rules of procedures governing informal hearings; and the hearing itself may be conducted less formally, sometimes even by mail. Nevertheless, the Officer still renders a recommended decision based on the evidence.

Common Elements of Formal and Informal Adjudicatory Proceedings

In most cases, the decision of the Administrative Law Judge or Officer is a "recommended decision," which is a recommendation to the EPA Administrator. The recommended decision becomes the final decision unless it is overturned.

The recommended decision can be appealed by either party within a particular period. If there is an appeal, the Administrator -- or, in practice, his or her Judicial Officer -- decides to accept or modify the recommended decision. It is important to remember, however, that in any adjudicatory proceeding, the presiding official (by whatever name he or she may be called) does make a substantive decision. That is why it is called an "adjudicatory" proceeding.

Anytime the government wants to impose an administrative penalty on or revoke the permit of a violator, it must use an adjudicatory proceeding which is governed by EPA's Consolidated Rules of Practice 40 CFR Part 22. Before someone has to pay a fine, he or she has the right to a hearing. Whether the hearing is formal or informal is determined by statute or the EPA regulations.

- Key Procedural Steps. In virtually all adjudicatory proceedings, there will be five key procedural steps:

  - Complaint -- the "accusation". The government has to issue a document (often called a Complaint) which sets out the alleged violations, proposes the imposition of a penalty (if any), states what injunctive relief the government is seeking, notifies the recipient of the right to a hearing, and indicates how to exercise that right.

  - Answer -- the "denial" and/or "excuse". The Respondent, or recipient of the Complaint, must file a written response (often called an Answer). In the response, the Respondent must specifically admit or deny each allegation made in the Complaint, and set out any defenses he may wish to make.

  - Motions. These are written requests for relief of an order accompanied by such documents as an affidavit. The other party is given a chance to respond to motions.

  - Hearing. If the case is not settled, a hearing is held. There may be a prehearing conference.

  - Order. After the hearing, the initial decision is rendered. After any appeal of the initial decision to the Administrator is completed, a final order will be issued, concluding the case.

  - Settlement. A case can be settled at any time in the adjudicatory proceeding process. Typically, settlement documents will include a Consent Agreement and Final Order which become binding on both the government and the violator.

Non-Adjudicatory Proceedings

Non-adjudicatory proceedings are characterized by the fact that there is no judge. There may or may not be a hearing, but there is no judge. Non-adjudicatory proceedings are only used for directed relief, that is, to force a person to do something or to stop doing something; they cannot be used to seek a penalty.

Non-adjudicatory proceedings can be divided into those that require a hearing and those that do not.

- With a Hearing. The purpose of a hearing is for the ultimate decision-maker (usually the head of the agency) to hear the arguments and viewpoints of concerned individuals. The presiding Hearing Officer is simply a traffic cop whose job it is to gather the evidence in an orderly fashion and hand it over to the head of the agency for a decision.

  Non-adjudicatory hearings are not at all like a trial. Rather, they are similar to Congressional hearings or town council hearings to consider a new ordinance or citizen complaint. For this reason, non-adjudicatory hearings are sometimes known as "legislative-type" hearings.

  Witnesses are not usually under oath. There is usually no cross-examination, nor are lawyers typically involved, at least not as direct participants. There are generally few formal rules designed to keep witnesses' statements "to the point."

  The purpose of these proceedings is not to allow a judge to render a decision, but merely to bring to the attention of the ultimate decision-maker the concerns and views of affected individuals, and perhaps the general public as well.

  In most cases, the process involves (1) issuance of a proposed order, (2) notification to the respondent of the right to a hearing, (3) a hearing, if requested by the respondent, and (4) issuance of a non-adjudicative order.

- Without a Hearing. In some administrative enforcement cases, no hearing at all is required. The agency decision-maker can simply issue an administrative order "commanding" someone to do something, and that person does not have a right to an administrative hearing.

  Often, this type of enforcement is authorized in emergency cases, where speed is extremely important. The point is that, in these cases, the public's right to be protected from a dangerous situation outweighs an individual's right to a hearing.

  As a matter of policy, even where the law allows issuance of an administrative compliance order without a hearing, EPA generally tries to afford the recipient an opportunity to confer informally with Agency personnel about the basis and terms of the order. Sometimes the law itself requires that opportunity for an informal conference be provided. The effective date of the order may be set at several days after the date of the order's issuance to give time for such a conference.

Appeals of Administrative Orders

All final administrative orders can be appealed to the U.S. courts. Whether the appeal is properly brought in the Federal District Courts, which are trial courts, or the Federal Circuit Courts of Appeal, depends on the terms of the authorizing statute.

What the court is supposed to do in deciding an appeal also varies by statute, whether or not there was as an adjudicatory hearing in the agency, how formal the hearing was, and the kind of administrative record the agency compiled before making a final decision (even in non-adjudicatory cases).

In some cases, the court rehears the facts of the case and renders its own, independent decision. This is called de novo review. In other instances, the court is restricted to reviewing the administrative record which the agency compiled and used as the basis for making its final decision. Only if the record shows that the agency decision was arbitrary and capricious can the court change the agency's ruling in non-adjudicatory cases. In adjudicatory cases, the agency's formal record must, as a whole, show "substantial evidence" supporting the decision.

Procurement and Assistance Listing (Debarment)

Under Section 306 of the Clean Air Act, Section 508 of the Clean Water Act, and Executive Order 11738, EPA was directed to establish a program to prevent all Federal agencies from awarding contracts or granting assistance to facilities that are a source of violations of either of those statutes.

This mandate is implemented through EPA's Contractor Listing Program. Under this program, facilities found to be violating the named laws may be placed on the EPA List of Violating Facilities (the List). Once placed on the List, a facility is ineligible to receive any non-exempt contract, subcontract, grant, subgrant, loan, or subloan.

A facility may be placed on the List as a result of two separate processes: mandatory listing and discretionary listing.

Mandatory (Automatic) Listing

EPA is required to place a facility on the List automatically if it is owned, operated, or supervised by a person who is convicted of certain criminal violations of the Clean Air Act or Clean Water Act. Once listed, a facility remains on the List until EPA has determined that the conditions which gave rise to the listing have been corrected. This will normally require an inspection of the facility to verify that the condition has been corrected prior to granting the facility's request for removal from the List.

Discretionary Listing

Under the regulations governing the listing program, a facility may be recommended for listing if it has been a source of continuing or recurring violations of the Clean Air Act or Clean Water Act in spite of a previous enforcement action. A recommendation to list may be filed by specific EPA, or State officials or by any member of the public.

Once a recommendation to list has been filed, EPA must determine whether listing is appropriate. When EPA is the recommending person, evidence of the violations may be supplied through inspection reports. The facility is given an opportunity to present its arguments opposing the listing action at a listing proceeding.

Delisting. Depending on the basis for listing, a facility can be removed from the List: (1) after one year, provided that it is not the source of a listable offense during that period; (2) if the facility submits a plan for compliance that is approved by EPA; or (3) if the facility corrects the condition that gave rise to listing. Compliance inspections of the facility may be sought if the facility requests removal from the List on the basis of carrying out a plan for compliance or correcting the condition that gave rise to listing.

6B CRIMINAL ENFORCEMENT

Over the past several years, EPA's criminal enforcement program has become a significant tool in the enforcement of environmental requirements. Its success has increased incentives for voluntary compliance by the regulated community. EPA's criminal investigations are handled by the criminal investigator staff of the Office of Criminal Enforcement (OCE).

While EPA inspectors do not routinely become involved in criminal investigations, the distinction between civil and criminal enforcement is often unclear and inspectors may find themselves associated directly or indirectly with a criminal investigation. Sometimes, the Agency pursues both civil and criminal actions at the same facility. An inspector may notice something during a routine inspection that suggests the possibility of criminal activity; these should be referred to the criminal investigation staff. In some cases, inspectors may be asked to accompany criminal investigators to aid in the collection of evidence.

Special training for inspectors (and other EPA technical personnel) who are involved in criminal investigations is provided by the Federal Law Enforcement Training Center (FLETC) in Glynco, Georgia. The purpose of this chapter is to heighten inspectors' awareness of EPA's criminal enforcement program and the role they can play in it. In addition to the overview in this section, special considerations related to criminal investigations are noted where appropriate throughout the rest of the text.

Special Attention to Defendant's Rights

Investigations of alleged criminal activities place even greater responsibilities on the participants involved. Because more severe penalties may be imposed on individuals convicted of violating the criminal provisions of environmental laws or other statutes, there are greater constitutional safeguards to protect their rights. Thus, it is of critical importance that all participants in criminal investigations be fully aware of these safeguards and conduct themselves accordingly. Special Agents of the Office of Criminal Enforcement provide the necessary instructions and directions to the investigation team on these matters.

From the beginning of a criminal investigation until it is completed, the constitutional rights of defendants must be fully protected and established investigation procedures must be followed. The special emphasis given to these matters results from the potential defendant's desire to conceal their criminal activities and, when detected, their frequent challenges to the procedures used to apprehend them.

These challenges to the government's case principally stem from the "Exclusionary Rule" which prohibits the use of evidence during the prosecution of a defendant whose constitutional rights were violated by the procedures used to collect that evidence. Also excluded is any information subsequently derived from improperly collected evidence. The procedures used by EPA's Office of Criminal Enforcement are designed to assure protection for the defendant's rights and leave a paper trail of the investigation that will support admission of the resulting evidence into a prosecution. Another frequent procedural challenge occurs when a suspect provides statements to a law enforcement officer, after being taken into custody. The Special Agent must first issue "Miranda warning" if the statements are to be admissible evidence. Defendants also have a right against self-incrimination. This means that a defendant can be silent and make the government prove its case.

Criminal Enforcement at EPA

As early as June 16, 1976, the United States Environmental Protection Agency recognized the need to be more vigorous in its pursuit of criminal sanctions, at least with respect to violations of the Clean Air Act. On that day, the first extensive guidelines for proceeding in criminal cases were issued by the Agency's Assistant Administrator for Enforcement. From that time until late 1980, the few substantial criminal cases referred to the Department of Justice were handled by the then-existing Office of Enforcement, without the benefit of a trained investigation staff. The need for criminal investigators was soon recognized.

On January 5, 1981, the Deputy Administrator directed the creation of the Office of Criminal Enforcement in Washington, D.C., and the hiring of a trained investigative staff to be located in the Regions and at the National Enforcement Investigations Center in Denver. Also in January 1981, the Attorney General of the United States confirmed the authority of EPA to initiate, or assist in, investigations into potential violations of the criminal provisions of the environmental statutes that the Agency administers, noting EPA's efforts to supplement its existing enforcement staff with trained criminal investigators.

The first director of OCE was appointed by the end of that year. Among the program's responsibilities were supervision of all Regional case development and referrals, development of Agency-wide training and policy, coordination of the Agency's joint investigative program with the Federal Bureau of Investigation (FBI), and liaison with the Department of Justice (DOJ) and outside law enforcement agencies.

Beginning in the fall of 1982, the criminal enforcement program hired an in-house staff of 23 experienced criminal investigators formerly with such law enforcement agencies as the FBI, Drug Enforcement Administration, Bureau of Alcohol, Tobacco and Firearms, and the Internal Revenue Service. Each agent had at least eight years of experience in the field of law enforcement.

That summer, the agents were deputized by DOJ as Special Deputy United States Marshals, giving them full power as law enforcement officers -- authorized to execute search warrants, make arrests, and carry firearms. As of May 1988, the investigative staff included 44 agents.

The criminal investigative staff is a part of the National Enforcement Investigations Center (NEIC) in Denver, with agents operating out of field units at Regional offices and at EPA Headquarters. In addition, EPA technical personnel, such as engineers and field inspectors, have received special training to assist the criminal investigative staff when needed.

The Agency has a staff of attorneys experienced in both criminal and environmental law who work with the investigators and DOJ in the actual prosecution of criminal cases. Located at EPA Headquarters within the Office of Criminal Enforcement, they provide legal policy guidance and general advice to the investigators and the Agency in criminal enforcement matters. They, along with designated Regional attorneys, also act as the primary source of expertise in the Agency for criminal cases.

Criminal Enforcement Compared to Civil Enforcement

This text focuses on procedures and techniques for collecting evidence that may ultimately lead to a form of administrative or judicial civil action. Generally, these same procedures and techniques are employed in criminal investigations as well. There are several exceptions, however, the most important of which are in the areas of search and seizure and compelling testimony. Because of the unique sensitivities and legal issues involved, inspectors assisting in criminal investigations should always follow instructions of the Special Agent (and enforcement attorney).

Searches

Investigators may search a person or the person's property seeking evidence of alleged criminal activity only: (1) with the consent of the person; or (2) after obtaining a warrant based upon sworn testimony demonstrating that there is "probable cause" to believe that a crime has been committed and that the search is necessary to obtain evidence of the crime. The probable cause standard for obtaining a warrant in a criminal investigation is far more stringent than for a warrant in a civil enforcement case.

EPA's criminal investigation staff seek and execute criminal warrants, but EPA inspectors may sometimes accompany criminal investigators to aid in the investigation. In such cases, instructions of the criminal investigator must be strictly followed since any evidence collected outside the authority of the search warrant would be illegally obtained.

It is important to point out, however, that evidence of a crime discovered through civil enforcement activity is generally admissable in court to prove the crime. For example, information collected by an EPA inspector during a routine inspection (with consent or under an administrative warrant) could be admitted as evidence in a criminal case because it was lawfully obtained. Similarly, evidence of a crime obtained in accordance with the "open field" doctrine (e.g., an observation of illegal dumping from a public road) would also be admissable.

Inspectors frequently ask how the reading of "Miranda rights" applies to the facility staff they interview, particularly if the interviewee's answers to questions begin to suggest that there may be criminal activity. Miranda rights only apply when a person is in custody, that is, once he or she has been arrested. Information provided in routine interviews is lawfully obtained evidence.

Compelling Information

In addition to obtaining evidence through a search warrant, the prosecutor may subpoena witnesses to provide information through testimony to a grand jury. Although a person may be subpoenaed to require a person to provide information in a civil proceeding, the prosecutor's ability to compel information in a criminal investigation is more powerful: a witness who fails to appear in response to a subpoena is subject to immediate arrest; an uncooperative witness can be forced to provide information through an enforceable court order; and testimony provided to a grand jury is secret, with severe penalties for anyone who violates that secrecy. This contrasts with persons subpoenaed for a civil proceeding: if a witness fails to comply with a subpoena, penalties can only be obtained after a hearing (a process that can take weeks). In addition, the information provided by the witness cannot be kept confidential if it falls within the scope of the other side's discovery requests.

Charging the Commission of a Crime

Unlike in a civil judicial case where an agency files suit, or a civil administrative case where an agency issues an administrative order, it is the grand jury or U.S. Attorney who charges persons or corporations with crimes. A grand jury brings a charge by returning an "indictment," which generally is issued for felonies (e.g., crimes subject to punishment by imprisonment for longer than one year). The U.S. Attorney brings a charge by filing an "information," which generally is used in connection with misdemeanors (i.e., crimes subject to punishment by imprisonment for one year or less).

Discovery

The general rule in criminal cases is that there is no discovery permitted by the defendant. There are exceptions to the rule. For example, case law requires a prosecutor to give to the defendant before the trial any exculpatory evidence (evidence that may show innocence) known to the prosecutor. A number of rules like this have been the basis for a few prosecutors to adopt an open file policy. It allows counsel for the defendant to access the entire prosecutor's file. However, defendants in criminal cases cannot file interrogatories or request for admissions, or take depositions of witnesses, as they can in civil cases.

Burden of Proof

Because criminal sanctions can be severe, the burden of proof is greater in a criminal prosecution than it is in a civil enforcement case. To prove a violation in a civil enforcement case the enforcement attorney is required only to show that a "preponderance of the evidence" is on his or her side (sometimes described as needing 50 percent of the material evidence on the government's side). To prove a criminal violation, a prosecutor must prove his or her case "beyond a reasonable doubt." If a reasonable doubt exists in the trier's mind about the defendant's guilt after the conclusion of a criminal case, the defendant is to be acquitted.

Penalties

A person convicted of criminally violating an environmental statute may be imprisoned and/or fined. A person found through civil enforcement action to have committed a violation is subject only to injunctive relief orders, and/or to financial penalties.

Criminal Investigations

Initiating an Investigation

An "initial lead," or allegation of potential criminal activity, may come to the Agency from any of several sources, including State agencies, routine compliance inspection, citizens, and disgruntled company employees. Regardless of the source of the tip, whoever receives the tip should notify the Special-Agent-in-Charge (SAIC) and/or Resident-Agent-in-Charge (RAIC) immediately. The SAIC or RAIC will evaluate the lead and, if necessary, assign a Special Agent for follow-up, assign a case number, and open an investigative file.

If the reliability of the lead is unclear, the special agent will conduct a preliminary inquiry to determine the credibility of the allegation and make an initial assessment for the need of a more thorough investigation. This initial inquiry is brief and involves no extensive commitment of resources or time. The purpose is to reach an initial determination of the need for a complete investigation. The Criminal Enforcement Division is consulted if this determination concerns legal issues of criminal liability.

During the course of a routine inspection, EPA inspectors are in a unique position to follow such leads. Inspectors should be alert to possible criminal activities such as falsified information in records and reports and illegal disposal. Facility staff may also volunteer information to inspectors about possible criminal activities.

Conducting an Investigation

If after the preliminary inquiry a decision is made to pursue a thorough investigation, the Special Agent contacts the Office of Regional Counsel and other appropriate offices to determine whether any civil enforcement action is pending or contemplated against the investigative target. If technical support for the investigation is needed, the Special Agent asks the appropriate Regional Program Division Director(s) to designate specific individuals to work on the investigation. All these activities are carried out in consultation with NEIC.

The Special Agent manages the investigation, under the supervision of the RAIC or SAIC. The Special Agent is responsible for determining the basic investigative approach; leading the conduct of interviews, assembling and reviewing records, and planning and executing surveillances; coordinating with the U.S. Attorney's office and other Federal, State, and local law enforcement agencies; communicating with informants; contacting other witnesses; performing other investigative functions; completing all required reports; and carrying out 11 coordination and notification requirements. Inspectors assigned to assist work under the direction of the Special Agent.

Security of Criminal Investigations

Information on criminal investigations must be provided only on a "need to know" basis. Active criminal investigations must not be discussed with personnel outside of the Agency except as is necessary to pursue the investigation and to prosecute the case.

Agency policy is to neither confirm nor deny the existence of a criminal investigation. If an inspector receives a request for information from the news media, it must be referred to the Special Agent, who will determine the response in consultation with other Agency offices. If a Congressional inquiry is received, the Assistant Administrator for Enforcement works with the Congressional Liaison Officer prior to releasing any information or making any public statements.

Written materials pertaining to the investigation must receive special care and attention. The NEIC criminal investigative offices and Compliance Enforcement Division offices are equipped with secure office space, filing cabinets, and evidence vaults. Similar security measures must be used by Regional staff assigned to an investigation.

Compliance with the Jencks Act

The purpose of the Jencks Act is to allow the defendant in a criminal prosecution to have, for impeachment purposes, all of the relevant and competent statements of a governmental witness. If the defense's ability to cross-examine a witness is impeded because Jencks Act material has been lost by the government -- either deliberately or inadvertently -- the court may decide not to allow the witness to testify at all or to strike the witness' entire testimony. Needless to say, the effect of excluding a government witness' testimony could be significant. Courts expect law enforcement agencies, including EPA, to have procedures to preserve potential Jencks Act material.

Essentially, the Jencks Act provides that the relevant notes, records, and reports of a witness who has testified for the government in a criminal prosecution must be turned over to the defense if the defense requests them through the court. The request can only be made after direct examination of the witness, and material that does not relate to the subject matter of the testimony is exempt. The effect is limited, after-the-fact discovery. (In civil cases, discovery processes give the other side almost unlimited access to government information on the case prior to trial.)

For the inspector, the principal effect of the Jencks Act is to underscore one of the major points of this handbook -- that accurate and complete notes, records, and reports are not only good practice, but essential. Further, notes and records should be factual, containing no opinions or biases of the inspector. Finally, to avoid any potential appearance that Jencks Act material has been lost, the inspector should throw nothing away -- not even a scrap of paper with rough calculations on it. All materials associated with a criminal investigation should be stored in accordance with security procedures.

For a more detailed discussion of Agency procedures for compliance with the Jencks Act, see the November 21, 1983 memorandum from Courtney Price, Assistant Administrator for Compliance and Enforcement, on the subject "Guidance Concerning Compliance With the Jencks Act." Copies are available from the Regional Counsels and the Office of Enforcement and Compliance Monitoring.

Participation in Grand Jury Investigations

With rare exception, Federal grand juries are used to develop EPA's criminal cases following referral to the Department of Justice (DOJ). Frequently, EPA employees -- including inspectors, attorneys, and technical personnel -- assist in these grand jury investigations under DOJ supervision.

The conduct of Agency employees is frequently subjected to close judicial scrutiny, since defense attorneys routinely challenge aspects of the grand jury presentation during motions filed after an indictment. Accordingly, Agency employees who assist DOJ during grand jury investigations must be familiar with, and abide by, the rules of conduct established by case law and the Federal Rules of Criminal Procedures.

When involved in grand jury investigations, EPA employees must follow the "Agency Guidelines for Participation in Grand Jury Investigations." Copies are available from the Regional Counsels and the Office of Enforcement and Compliance Monitoring.

Recognizing Potential Criminal Violations

It is neither expected nor desired that civil inspectors and investigators be able to define or even that they attempt an in-depth legal or investigatory analysis of whether criminal conduct has occurred or is occurring at regulated sources. The issues are complex and even the highly trained Special Agents in the Office of Criminal Investigations will do that with the help of attorneys in the Office of Criminal Enforcement Counsel, the Office of Regional Counsel, and the Environmental Crimes Section of the Department of Justice. Nevertheless, it is important that all acts of the regulated community exhibiting actual or suspected environmental criminal conduct be referred to the Office of Criminal Investigations for review and possible investigation.

The problem is, how does one go about recognizing those actions that may potentially constitute criminal violations?

- Knowing or willful behavior--defined as criminal under all Federal statutes.
- Negligent actions--defined under the Clean Water Act as criminal behavior.
- Fraudulent reporting--defined under all statutes and the U.S. code as criminal behavior.

Evidence of criminal wrongdoing is seldom blatant, and usually is quite subtle. The inspector should try to learn as much as he or she can when one of the types of findings listed below puts up a red flag of the possibility of criminal actions, and the OCI should be consulted. The following is exemplary only:

- Conflicting data: two sets of books, inconsistent monitoring reports on the same incident;
- Conflicting stories: when an inspector is led to believe one thing and sees something quite different in records or through observation;
- Unsubstantiated data: monitoring or other recordkeeping and reporting information which lacks any record or information to support reported information should raise suspicion;
- Deliberate actions: when an employee says he was told to do something the inspector knows is illegal; or
- Claims of ignorance about requirements: copies displaying knowledge are discovered in the records, or others make statements during interviews of knowledge.

If any of these problems are in evidence, or others are present that make the inspector suspicious, he or she should attempt to obtain further information through interviews, observations, and records reviews and consult with the OCI about such findings.

Case Studies

The following are examples of how inspectors' findings have led to subsequent criminal investigations.

- CWA Case. An EPA inspector investigating possible RCRA hazardous waste storage violations of a drum recycling operation noted excessive oil stains in a loading dock and roadway located at the facility. Further observations by the inspector revealed a large area of stained vegetation in an adjacent low-lying area on private property. Subsequently, the inspector questioned the landowner about the source of the stained area. The landowner indicated the stain was caused by oil draining onto his property during heavy rain storms and stated that the source of the oil was the drum recycling operation. He further stated that in the spring during a period of abnormally heavy rainfall, a small pond located on his property was covered with a thick oil slick. After the landowner complained several times to the plant foreman, a laborer was directed to dig a channel from the pond to an adjacent creak thus allowing the oil to drain. The inspector photographed the channel and obtained soil samples which, when analyzed, were found contaminated with various oils. This evidence along with corroborating witness testimony ultimately resulted in a felony conviction under the Clean Water Act for willful and knowing discharge of pollutants into navigable waters of the United States.

- RCRA Case. A State inspector received a telephone call about a large number of 55-gallon drums being accumulated in a local warehouse. Acting on this information, the inspector discovered that the warehouse contained in excess of 400 55-gallon drums, most of which bore hazardous waste labels. The inspector noted that a number of different companies were listed as the waste generators. Additionally, it was noted that the accumulation dates were between six and eight months old.

  When the owner of the property was located, he stated that the drums contained primarily plating wastes destined for recycling for their metal content. The property owner showed the inspector that he did in fact have most of the equipment required for a recycling operation and explained that as soon as additional electrical installation were completed, the waste would be processed into a saleable non-hazardous product. The inspector periodically observed warehouse operations for the next four months. During this time, he noted additional deliveries of 55-gallon drums. However, there was no indication that the waste material was being processed. On the basis of these assessments, the inspector notified the NEIC Office of Criminal Investigations of what appeared to be deliberate violations of the RCRA regulations dealing with the hazardous waste storage. Based on the information the State inspector provided, a Federal criminal search warrant was obtained to inspect and sample the drummed material. As a result of the criminal investigation, the president and vice president of the corporation were indicted on charges of illegally transporting and storing hazardous waste material.

CHAPTER 7

ENTRY AND INFORMATION-GATHERING TOOLS

EPA's ability to determine the compliance status of regulated facilities stems from its authority to enter premises and conduct inspections as well as other information-gathering tools or reporting requirements that can be used to obtain compliance information.

Proper, lawful entry into an inspection site is critical, for failure to adhere to the requirements for exercising the Agency's entry authority could jeopardize any enforcement action. Evidence that was collected could be ruled inadmissible because it was unlawfully obtained.

This chapter discusses the legal bases for entry and the Agency's policy and practice to enter with the consent of facility officials. The chapter also includes entry and entry documentation procedures designed to assure that the legality of the inspection will not be challengeable as well as procedures for seeking and inspecting with a warrant. Finally, the other information-gathering tools that can be used to support compliance and enforcement efforts are described. The chapter is based on materials developed by Region X attorneys David Dabroski and John Hamill.

7A LEGAL BASES FOR ENTRY

Statutory Authority

The legal basis for entry starts with the statutory authority to enter, whether expressly stated, or implied through the authority to enforce the statute or to compel compliance and/or impose sanctions on violators. Each of the statutes administered by EPA grants authority to enter and inspect facilities, as presented in Exhibit 7-1. The authority granted in each statute is similar to that stated below, from Section 308 of the Clean Water Act:

> "(a)(B) the Administrator or his authorized representative, upon presentation of his credentials --
>
> (i) shall have a right of entry to, upon, or through any premises in which an effluent source is located or in which any records required to be maintained...are located, and
>
> (ii) may at reasonable times have access to and copy any records, inspect any monitoring equipment or method required..., and sample any effluents which the owner or operator of such source is required to sample...."

Constitutional Provisions

Two Constitutional provisions have bearing on the authority-to-enter issue, as follows:

- Article III of the Constitution empowers the court to issue orders confirming the substantive entry powers granted by the legislature through statute. As such, Article III is the source of power for the judiciary to issue warrants. However, it is important to understand that this Constitutional provision does not grant entry powers; rather, it establishes the basis for enforcing the pre-existing statutory authority to enter.

- The Fourth Amendment to the Constitution protects persons from unauthorized entry. Specifically, it states:

  > "The right of the people to be secure in their person, houses, papers, and effects, against unreasonable searches and seizures, shall not be violated, and no Warrants shall issue, but upon probable cause, supported by Oath or affirmation, and particularly describing the place to be searched and the persons or things to be seized."

  It is important to note that this Constitutional provision does not prohibit searches, it only forbids unreasonable searches. Furthermore, while the Fourth Amendment limits and controls government activity by means of a warrant procedure, it is not the primary source of power to issue warrants. The power to issue warrants is derived from Article III, as stated above.

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Court Decisions Regarding Entry Authority

Statutory and Constitutional provisions regarding authorized entry and protection against unlawful entry by the government have been the subject of numerous court challenges and appeals during the past two hundred years. Court decision-making has defined the applicability and scope of statutory and Constitutional provisions in particular terms; i.e., the law as it applies to the facts of the specific case. This is the foundation for case law. Several recent court decisions, pertaining to entry rights and the use of warrants, have bearing on the EPA inspection process, and are discussed below.

In Marshall v. Barlow's, 436 U.S. 307 (1978), the U.S. Supreme Court addressed the need for an administrative warrant when an Occupational Health and Safety Administration (OSHA) inspector sought entry into a workplace where consent for the inspection was not voluntarily given by the owner. The company had challenged the constitutionality of the statute authorizing OSHA to enter. The court upheld the statute, but was concerned that it not be interpreted so as to permit OSHA inspectors to proceed without warrants after consent to enter has been denied. The court held that an OSHA inspector was not entitled to enter the non-public portions of a worksite without either the owner's consent or a warrant.

At the same time, the court established two standards or bases for the issuance of civil or administrative warrants: (i) reasonable cause to believe that a circumstance (e.g., a violation) addressed by statute had occurred or was occurring at the facility of (ii) that the facility to be entered was identified and selected by the Agency based on a pre-existing administrative plan or scheme for entries. The "plan" or "scheme" was not itself required to be "neutral" or random, but the basis for the plan was required to be neutral, thereby precluding selection of sites by individuals in the field who were malevolently motivated. The Barlow's court message, in this respect, was simply that the government (through its field agents or otherwise) cannot "pick on" people with subtle harassing techniques or through the exercise of entry, search, inspection, investigation, information-gathering, or correctional rights or powers.

Post-Barlow's case law has provided a context for EPA policies and procedures. Most of the EPA-administered statutes have provisions expressly authorizing the EPA Administrator and his "authorized representatives" to enter a facility and perform various activities after entry. To date, the EPA-administered statutes have not been successfully challenged on the constitutional issue raised in Marshall v. Barlow's. Thus, whether (and when, if at all) EPA is constitutionally required to obtain court-issued warrants (or orders) to gain non-consensual entry into the non-public areas of a facility is an issue yet to be litigated authoritatively.

EPA Policy and Practice

In practice, EPA conducts its affairs as if the rules announced in the Barlow's case also applied in all instances to EPA under all the environmental statutes. While EPA has not conceded that the Barlow's decision is controlling with regard to EPA's rights of entry under the statutes it administers, EPA policy to obtain a warrant when owner consent to enter a facility has been denied, is based on the understanding that it is less resource consumptive in the long run to take the precautionary action of obtaining a warrant, than it would be to litigate under each of the different statutes. In short, EPA probably does not need a warrant to enter a facility in the absence of owner consent, but EPA policy is to inspect with consent; therefore, when consent is lacking, EPA obtains a warrant to "validate," "confirm," and "credentialize" its statutory authority to enter. The warrant serves as judicial confirmation of EPA entry authority.

While EPA officials may not be constitutionally required to obtain warrants, they clearly have the right to obtain a warrant as provided for in the Barlow's decision. This "right to a warrant" exists regardless of whether the application of the Fourth Amendment to a particular situation does or does not require a warrant. However, contrary to the requirements existing for criminal warrants, it is now clear that an Agency must first have substantive rights to enter onto premises before the use or the issuance of an administrative warrant is proper. In Bunker Hill Co. v. EPA, 658 F2d 1280 (9th Cir., 1981), the court upheld that EPA's statutorily expressed right of entry was sufficient basis for EPA using, and the magistrate issuing, an administrative warrant. Further, there is no necessity for the Agency to have "implementing regulations" in order to obtain warrants, but it must have and show statutory rights of entry onto premises.

The right to obtain a warrant is particularly important to government officials, in general, and inspection personnel, more specifically. In addition to credentializing government officials, a warrant affords substantial legal protection to an inspector from private suits for damages. A valid warrant gives an official absolute immunity from liability for activity conducted in conformity with the warrant. In that respect, the warrant spares the official the very real injustice of undergoing prolonged litigation of some claim asserted by a premises possessor.

Despite the Barlow's decision, there are some areas where a right of warrantless entry still exists, as discussed below:

- Emergency situations, such as potential imminent hazard situations, as well as situations where there is potential destruction of or where evidence of a suspected violation may disappear if time is permitted to elapse. In an emergency, when there is insufficient time to obtain a warrant, a warrantless inspection is permissible. In Camara v. Municipal Court, 387 U.S. 523 (1967), the U.S. Supreme Court stated, "nothing we say today is intended to foreclose prompt inspections, even without a warrant, that the law has traditionally upheld in emergency situations." Nothing in the Barlow's decision suggested the court intended to retreat from this position.

  The Regions will always have to exercise considerable judgment as to whether a warrant should be served when dealing with an emergency situation. However, if entry is refused during an emergency, the Agency would need the assistance of the U.S. Marshal to gain entry. During the time necessary to secure the Marshal's assistance, a warrant could probably be obtained.

- Pervasively regulated industries. The Barlow's rules do not apply to areas that have been subject to a longstanding and pervasive history of government regulation. There are some grounds for interpreting FIFRA inspections as legitimately falling within this category. An EPA administrative law judge recently held that even after the Barlow's decision, refusal to allow a warrantless inspection of a FIFRA-regulated establishment properly subjected the owner to civil penalty [N. Jonas and Co., Inc., I.F. & R Docket No. III-121C (July 27, 1978)]. Nevertheless, EPA policy holds that FIFRA inspections should be conducted under the same requirements as the other compliance monitoring/enforcement programs. Therefore, it is prudent to obtain a warrant when owner consent is not forthcoming.

- "Open Fields" and "In Plain View" situations. Observation by inspectors of things that are in plain view (i.e., that are able to be seen by anyone in a lawful position or place to make such observations) do not require a warrant. For example, an inspector's observations from the public area of a facility or even from certain private property not closed to the public are admissible. In addition, observations made even before the presentation of credentials while on private property, which is not normally closed to the public, are also proper and valid. Further, even during the execution of a warrant, those matters outside the warrant's scope are considered "in plain view" so long as the warrant permits the inspector to be where he is.

EXHIBIT 7-1

SUMMARY OF FEDERAL ENVIRONMENTAL ACTS REGARDING RIGHT OF ENTRY, INSPECTIONS, SAMPLING, TESTING, ETC.

Act/Section	Designated Representative	Presentation Credentials	Notice of Inspection	Sampling Permitted	Inspection of Records	Sample Splits	Receipt for Agency's Samples	Return of Analytical Results
Clean Water Act/308(a)	Yes, authorized by Administrator	Required	Not required	Yes (effluents which the owner is required to sample)	Yes	Not required	Not required	Not required
FIFRA/8(b) (Books & Records)	Yes, designated by Administrator	Required	Written notice required with reason and suspected violation note	No	Yes	N/A	N/A	N/A
9(a) (Inspections of establishments)	Yes, designated by Administrator	Required	Written notice required with reasons for inspection	Yes	See 8	Required, if requested	Required	Required, promptly
Clean Air Act/114(a)	Yes, authorized by Administrator	Required	Not required except notify State for SIP sources	Yes	Yes	Not required	Not required	Not required
RCRA/3007(a) 9005(a)	Yes, designated by Administrator	Not required	Not required	Yes	Yes	Required, if requested	Required	Required promptly
SDWA/1445(b)	Yes, designated by Administrator	Required	Written notice required, must also notify State with reasons for entry if State has primary enforcement responsibility	Yes	Yes	Not required	Not required	Not required
TSCA/11(a,b)	Yes, designated by Administrator	Required	Written notice required	(The Act does not mention samples or sampling in this section. It does state an inspection shall extend to all things within the premise of conveyance.)	Yes	N/A	Required	N/A
CERCLA/104	Yes, designated by President	Not required	Not required	Yes	Yes	Required, if requested	Required	Required promptly

7B CONSENSUAL ENTRY

Arrival for the Inspection

To comply with statutory authority and to avoid any "unreasonable search" and procedural problems, a facility should be entered in the following manner:

- Arrival at the facility should occur during normal working hours, unless mitigating circumstances, such as an emergency, require immediate response during off-hours.
- The facility should be entered through the main gate; except where a facility, in its response to an inspection notification letter, has designated another entrance.
- The facility owner or agent-in-charge should be located as soon as the inspector or inspection team arrives on the premises.
    - If there is only a guard present at the entrance, the inspector should present his credentials and suggest that the guard call his superior or the responsible facility agent.
    - Locating the proper facility officials may take some time and require contact with several receptionists or secretaries. Inspectors should be careful to keep their official credentials in sight at all times during this process. Business cards (which may be available at inspector cost through the Regional offices) may be used for introductory purposes, but do not replace official credentials for identification.
- If the facility provides a sign-in sheet, log, or visitor's register, it is acceptable to sign it provided there is no restrictive language associated with it. However, inspectors should not sign a release of liability (waiver) when entering a facility under the authority of Federal law, since under the Federal Employee's Compensation Act, Federal employees have no authority to sign documents that may adversely affect the government's subrogation rights in the event that these become an issue.

Credentials

When the proper facility officials have been located, the inspector should introduce himself as an EPA inspector and present the proper EPA credentials. These credentials indicate that the holder is a lawful representative of the Administrator of EPA and is authorized to perform inspections under EPA regulations. Five statutes require the display of credentials, while two statutes do not make this a requirement, as shown in Exhibit 7-1. In those programs where the statutes require display of credentials, the credentials must be presented whether or not identification is requested. In practice, Agency policy is that even where not required by statute, inspectors should present their credentials to authenticate the representation that they are Federal officials who have the authority to conduct inspections.

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After facility officials have scrutinized the credentials, they may wish to telephone the EPA Regional office for verification of the inspector's identification. This is acceptable; however, credentials should never leave the sight of the inspector. Make a note in the field logbook that credentials were presented.

Notice of Inspection

Three statutes (FIFRA, SDWA, and TSCA) require that a written Notice of Inspection be presented to the facility, while four statutes do not contain that requirement as shown in Exhibit 7-1. It should be noted that while three statutes require a written Notice of Inspection prior to entry, it is not necessary under these acts to provide advance notice of an intent to inspect; such notice can be presented after arrival on site.

Once inspector identification has been established, the written Notice of Inspection should be presented to facility officials as required by statute. The Notice should be dated, and the time of inspection should be entered as proof that entry was requested at a reasonable hour. In addition, if records ordinarily exempt from inspection (e.g., financial, sales, pricing, personnel, or research data) are specifically listed on the Notice, facility officials should be verbally informed of the intent to inspect these records. Make a note in the field logbook regarding presentation of the Notice and keep a copy of the Notice as part of the inspection file as proof of proper entry.

Consensual Entry

Despite the statutory authority to enter a regulated facility, EPA's policy is to obtain access by consent. EPA solicits consent as a matter of courtesy; it is not required to do so as a matter of law since it has statutory rights of entry, search, inspection, sampling, etc.

Consent means the intentional foregoing of right to privacy that has not resulted from fear, ignorance, or trickery. In other words, consent to enter must be given knowingly and freely. Express consent is not necessary; absence of express denial constitutes consent. Therefore, in circumstances where the facility owner/ operator complains about the entry, or otherwise expresses anger with EPA or the government, the entry is still consensual unless: (i) the inspector has been asked to leave and/or (ii) the inspector has used coercion to obtain entry. For example, if an inspector suggests that failure to permit entry will result in civil or criminal consequences, then the subsequent entry might not be considered consensual since the "threat" of negative consequences could be perceived as coercion.

Consent must be given by the "possessor" of the premises, or some other person with authority to give consent, at the time of the inspection. (An "owner," i.e., a landlord, sometimes lacks current possessory rights). In the absence of the possessor, the inspector must make a good faith effort to determine who is in charge of the establishment, or is otherwise in a position to consent to the entry. The inspector should present his credentials to that individual. Note the name and title of the person giving consent in the field logbook.

In most instances obtaining consensual entry will be a simple, straightforward procedure upon presentation of credentials. However, two circumstances bear special consideration:

- Reluctance to give consent. The receptiveness of facility officials toward inspectors is likely to vary from facility to facility. If consent to enter is flatly denied, the inspector should follow the Denial of Entry procedures discussed below. However, in some cases, entry is not flatly denied, but officials may be reluctant to give entry consent due to misunderstandings of responsibilities, inconvenience to a firm's schedule, or other reasons that may be resolved by diplomacy and discussion.

  Whenever there is difficulty in gaining consent to enter, inspectors may tactfully probe the reasons and try to resolve the obstacles (provided they do not agree to any restrictions that compromise their authority to inspect or the actual scope of the inspection activities). While as a practical matter, EPA personnel often attempt to "work something out," the law does not require such "negotiating" as that would require EPA to forgo its statutory "rights." In all such instances, care should be taken to avoid threats of any kind, inflammatory discussions, or deepening the misunderstandings. If the situation is beyond the authority or ability of the inspector, the Regional office should be contacted for guidance.

- Uncredentialed persons accompanying an inspector. The consent of the owner or agent-in-charge must be obtained for the entry of persons accompanying the inspector if such individuals do not have specific authorization. If consent is not voluntarily given, these persons may not enter the premises.

- Access to Federal facilities requiring security clearances. Certain Federal facilities, including those with military, intelligence, nuclear-related, and law enforcement functions, may have special security or access requirements necessitated by the facility's mission. As stated in EPA's "Federal Facilities Compliance Strategy" issued in September 1988, it is EPA's policy to meet these special entry requirements to the maximum extent possible since these requirements generally do not conflict with the goals of EPA's environmental compliance responsibilities. Where necessary, EPA or State inspectors must obtain the appropriate clearance for access to national security information, facilities, or restricted data at Federal facilities. Where information has been classified, restricted, or protected for national security, law enforcement or other similar reasons, all such information is to be maintained in accordance with the originating agency's requirements.

  EPA has programs for personnel security, document security, and protection of confidential business information. Protection of information from release has not adversely affected EPA's environmental mission to date and EPA staff with these responsibilities can provide assistance to inspection and compliance personnel in meeting special access or security requirements if such access is allowed by the specific statute. EPA inspectors or other personnel in need of security clearances for inspections or other compliance monitoring activities should contact the Personnel Security Staff at EPA Headquarters to obtain information on how to obtain necessary security clearances. State inspectors should first contact the Federal agency regarding procedures to be followed to obtain required clearances. If problems or inordinate delays are encountered, they should ask the EPA Regional Federal Facility Coordinator for assistance in obtaining needed clearances.

  It is also recommended that during the annual EPA and State inspection planning process each media program check to ensure that at least one inspector has the proper security clearances. Obtaining top level clearances can take up to one year, so advance planning should help avoid unnecessary delays.

Denial of Consent to Enter

If an inspector is refused entry into a facility for the purpose of an inspection under an EPA-administered statute, certain procedural steps must be followed, as detailed below.

- Arrival and Presentation of Credentials/Notices. Make certain that arrival activities were properly conducted, including that all credentials and notices have been properly presented to the facility owner or agent-in-charge.

- Tactfully Discuss the Reason for Denial. If entry is not granted, courteously ask why. Diplomatically probe the reason for the denial to see if obstacles (such as misunderstandings) can be resolved. If resolution is beyond the inspector's authority, he or she may suggest that facility officials seek advice from their attorneys on clarification of EPA's inspectional authority.

- Carefully Record Observations in the Field Logbook. All observations pertaining to the denial should be carefully noted in the field logbook. Specifically, record the following:

  - Facility name and exact address.
  - Name, title, and authority of the person who refused entry.
  - Name, address, and telephone number of the facility's attorney (if readily available).
  - Date and time of refusal.
  - Reason for denial.
  - Facility appearance.
  - Any reasonable suspicions that refusal was based on a desire to cover up regulatory violations, etc.

  All such information will be helpful should a warrant be sought.

- Avoid Threatening or Inflammatory Statements. Under no circumstances should the inspector discuss potential penalties or do anything that may be construed as coercive or threatening. For example, the Barlow's decision clearly established that the possessor has the right to ask for a warrant under normal circumstances. Therefore, refusal to permit entry for inspection purposes is not likely to lead to civil or criminal penalties, providing the refusal is based on the inspector's lack of a warrant, and one of the conditions discussed earlier with respect to warrantless entry does not apply. If the inspector were allowed to enter the facility in response to a threat of enforcement liability, it is likely that any evidence obtained through such an inspection would be challenged as inadmissible.

An inspector may, however, inform the facility representative that he intends to seek a warrant to compel the inspection. The inspector must be careful in phrasing such a statement. Do not state: "I will get a warrant." A later reviewing court may feel that statement usurped its authority to authorize a warrant and therefore may deny the warrant. Alternatively, even if the company later consents, following a statement that the inspector "will get" a warrant, there may be an issue as to whether the consent was coerced.

If the inspector decides to make a statement with regard to a warrant, it should be phrased along the lines of: "I intend to seek (or apply for) a warrant."

- Leave Premises and Contact Supervisor. If entry is still denied after attempting to resolve obstacles, the inspector should withdraw from the premises immediately after obtaining the information noted above in the field logbook. In such circumstances, if a written Notice of Inspection was required, a copy of the Notice should be left with facility officials to show that proper procedures were followed.

  The inspector should telephone his or her supervisor immediately after leaving the premises. The supervisor will confer with the designated Regional Attorney to discuss the desirability of obtaining an administrative warrant. The Regional Enforcement Attorney generally will seek to discuss the matter by phone with the facility representative to resolve the issues immediately, thereby allowing the inspection to proceed without further delay. Failing this, the Regional Enforcement Attorney typically will contact the U.S. Attorney's Office for the district in which the facility is located, and explain the need for a warrant to conduct a particular inspection.

  The Regional Attorney generally will arrange for an Assistant U.S. Attorney to meet with the inspector as soon as possible. The inspector should take copies of the appropriate draft warrant and affidavits to the meeting. (Warrants and affidavits are discussed below.)

Withdrawal of Consent During Inspection

Occasionally, a facility may consent to an inspection and later withdraw the consent while the inspection is in progress. Consent to the inspection may be withdrawn at any time after entry has been made. Agency policy regards withdrawal of consent as tantamount to a refusal to permit entry. Therefore, the inspector should follow the procedures cited above under "Denial of Consent" unless the inspection has progressed far enough to accomplish its purposes such that it is unnecessary to attempt to regain consent.

All activities and evidence obtained prior to the withdrawal of consent are valid. Therefore, evidence obtained by the inspector before consent was withdrawn would be usable in any subsequent enforcement actions and should be retained.

Conditional Consent

Conditional consent refers to the attempts by some facilities to restrict EPA's post-entry activities by imposing one or more requirements or restrictions on the inspector as a condition of entry. In essence, facilities attempt to co-opt inspectors or "hamstring" their activities.

Conditional consent most often takes the form of efforts to impose:

- Waivers, indemnity agreements, or releases.
- Confidentiality or secrecy conditions or agreements.
- Photographic restrictions.
- Extra safety gear training.
- Duplication of the inspector's notes for facility review.

As a general rule, any request, requirement, or restriction that would necessitate deviation from standard procedures should be interpreted as an effort to impose conditions. EPA rejects all such efforts. Conditions to entry are not acceptable and the inspector should not agree to them. Efforts to impose conditions should be considered a denial of consent, and the inspector should respond accordingly. However, a request that the inspector wear a visitor's badge or that EPA personnel comply with reasonable procedures (e.g., wearing a hard hat or safety eyeglasses) should not generally be considered "conditions" of entry.

Even when entry has been obtained without any effort to impose conditions, the inspector must be sensitive to efforts that may be made during the inspection. If this occurs, the inspection should regard it as a revocation of consent, and proceed in the same manner as if consent had been withdrawn.

Scope of Inspection Activities

The fundamental rule is that the language of the statute straightforwardly determines the nature and extent of EPA's authorized post-entry activities. In general, each of the statutes includes the word "inspect" or "inspecting" or "inspection," which has been interpreted as including the prerogative of recording by means of a sample, photographically, by tape recording, graphically by electronic devices with a visual taped readout, or by any other method whatever matters were "inspected".

Court cases have tested the scope of activities authorized by EPA statutes. For example, one case, Mobile Oil Co. v. EPA, resulted in a ruling that the sampling of in-house, as opposed to end-of-pipe, process effluent was within EPA's inspection and sampling rights. Another case, In Re Bunker Hill Co., supra, explicitly ruled that EPA's right to inspect included the right to take photographs (although these may be subjected to claims of confidentiality under some statutes).

Regulated facilities frequently make attempts to restrict EPA's post-entry activities by asking inspectors to sign passes, logs with restrictive language, waivers, indemnity agreements, releases, or other such items. The Department of Justice does not permit EPA inspectors to sign or agree to any such conditional restrictions. Further, EPA representatives have both the right and the responsibility to refuse to sign any agreement (confidentiality or secrecy) to the effect that what is observed or discovered during an investigation will not be released in documentary form. (However, inspectors may facilitate a source's claim for business confidentiality under some regulations.) Any such attempts to circumscribe EPA inspection activities should be regarded as a refusal of consent and dealt with accordingly.

Some regulated facilities attempt to limit EPA activities in terms of the use of mechanical sensor or other recording devices. EPA has the complete authority to use photography, as noted above; it also has the right to utilize aerial overflights, LIDAR (a form of radar used to detect and measure distant air emissions of particulate matter), and other aerial or ground surveillance sense enhancement devices. If a source places a restriction on any such on-site use of recordation devices, this should be viewed and handled as refusal of consent.

As mentioned previously, EPA representatives are typically encouraged by Agency policy to use the same safety gear that is actually used by facility employees. However, EPA inspectors are not required to submit to undergoing the facility's safety training program. If the facility makes such demands, the inspector should refuse and should treat the situation as a refusal of consent.

Inspector Judgment

Because the Agency's statutory authorities for entry are broad, it is the Agency's policy to handle as a denial of consent, any attempts to restrict or place conditions on the scope of the inspection. The inspector should never sign anything that would compromise his or her rights or the rights of the government. The right of the government to take photographs or electronic recordings is clear.

As is true for many situations faced by inspectors, however, there are judgment calls to be made. The question is to what extent a limitation will inhibit the inspector's ability to conduct a complete inspection (or compromise a right of the inspector and/or the government). If the inspector leaves the premises without conducting the inspection at all, there are costs involved. At a minimum, there will be a delay in performing the inspection while a warrant is sought and obtained. The Agency may decide it is not worth keeping the inspector on the road longer or sending an inspector out again later, so the inspection may never be performed.

Experienced inspectors find that they can often negotiate a compromise with facility managers to get around apparent stumbling blocks to gaining consent to enter. The examples below suggest some of the ways inspectors have actually handled situations that might have been considered denials of entry. Remember that these are judgment calls, and as such, there are risks involved. If the inspector is in doubt, he or she should consult with Regional attorneys regarding the appropriateness of a potential solution in a given fact situation. The inspector always has the option of leaving and seeking a warrant, before or after the inspection has begun.

- Restrictive language in sign-in book or form: Inspectors have simply crossed out offensive language before signing, obtained a photocopy, and made a note in their field logbook about it.

- Photographs: When facility managers express that they do not want photographs taken, the inspector can proceed with the inspection -- and raise the issue again only if a particular photograph(s) is essential to completion of the inspection. If still denied, a warrant can be sought.

- Safety training: Inspectors cannot be required to take the facility's safety training course prior to entry. However, if the company has a relatively short safety briefing that will not interfere with the inspector's ability to complete the planned inspection, it may be worthwhile to sit through it. Inspectors sometimes find that they can learn the layout and other facts about the facility through such briefings.

7C WARRANT ENTRY

A warrant is a judicial authorization for an appropriate official (e.g., an EPA inspector, U.S. Marshal, or other Federal officer) to enter a specifically described location and perform specifically described inspection functions. An administrative warrant can be obtained: (i) in advance of inspection, (ii) when facility officials have denied entry to an inspector, or (iii) when consent to inspect has been withdrawn during an inspection.

Warrants are applied for and obtained ex parte, that is, without the knowledge of the other side. Past experience demonstrates that if the other side (the facility) is aware of the effort to obtain a warrant, EPA will find itself bogged down in court motions and other delaying tactics. For that reason, it is also inappropriate to give a facility advance notification of an inspection that will occur under a warrant. It can be a criminal violation for anyone to disclose the existence of a warrant prior to its execution.

The Agency must draft three documents to obtain a warrant: an application for a warrant; an accompanying affidavit; and the warrant itself. Each document is captioned with the District Court of jurisdiction, the title of the action, and the title of the particular document. Sample documents are provided as exhibits at the end of this section. (Occasionally, a Memorandum of Points and Authorities in Support of Warrant Application also will be filed. This is essentially a legal brief, explaining to the magistrate why he or she can do what is being asked.)

The inspector plays a significant role in the process of seeking a warrant. His or her knowledge and experience relating to the circumstances are crucial to the drafting of warrant documents. Inspectors are responsible for:

- Obtaining information that will permit very specific description of the premises to be inspected.
- Providing specificity regarding the items to be searched and/or seized.
- Helping determine what laws/regulations/requirements apply or may have been violated.
- Providing the information amounting to "reasonable" cause or, alternatively, supplying the predetermined inspection schedule, which selected the site for inspection, if "reasonable" cause was not the issue.

Regarding all of the items, the inspector should help "cast a wide net," but one that is still legitimately founded on the facts and the applicable law. Drafting warrant documents is a particularly important area where attorneys and inspectors must work together as a team.

Seeking a Warrant in Advance of Inspection

A warrant may be obtained during the pre-inspection preparation phase, prior to going on-site. A denial of entry is not a prerequisite to obtaining a warrant. The Barlow's decision recognized that an agency may wish, on occasion, to obtain a warrant to conduct an inspection even before there has been any refusal to allow entry. A pre-inspection warrant may be sought at the discretion of the Regional office if:

- A violation is suspected that could be covered up during the time needed to secure a warrant once the inspectors have arrived on-site.
- Prior correspondence or other contact (e.g., review of Agency records) with the facility to be inspected provides reason to believe that entry will be denied when the inspector arrives.
- The facility is unusually remote from the Regional office or a U.S. District Court so that a necessity to obtain a warrant at a later phase of the inspection process would be inconvenient to the government.

Seeking a Warrant for Denied Entry

It is EPA policy to seek a warrant when all other efforts to gain lawful entry have been exhausted, and the inspector has carefully followed established entry/denial of entry procedures. Determination to secure a warrant will be made by the Regional program office in concert with other cognizant EPA officials. Usually, the Regional program office will consult with Regional enforcement attorneys and with Headquarters in accordance with established policy. For example, Headquarters monitors refusals and Regional success in obtaining warrants in order to evaluate the need for improved procedures, as well as to assess the impact of the Barlow's decision on Agency compliance monitoring programs.

Securing and Executing a Warrant

Once it has been determined that a warrant should be secured, there are precise procedures for obtaining and executing a warrant, as detailed below.

Contact the U.S. Attorney

After a decision has been made to obtain the warrant, the designated Regional official will contact the U.S. Attorney of the district in which the property is located. The Agency assists the U.S. Attorney in the preparation of the warrant and necessary affidavits.

Apply for the Warrant

The application for a warrant identifies the statutes and regulations under which the Agency is seeking the warrant. The name and location of the site or establishment to be inspected should be clearly identified and, if possible, the owner and/or operator should be named. The application can be a one- or two-page document if all factual background for seeking the warrant is stated in the affidavit, and the application so states. The application is generally signed by the U.S. Attorney or by the Assistant U.S. Attorney. The application for a warrant should be made as soon as possible after the denial of entry or withdrawal of consent. (See Exhibit 7-2.)

Prepare the Affidavits

The affidavits are crucial documents in support of a warrant application. Each affidavit consists of consecutively numbered paragraphs that describe all of the facts in support of warrant issuance. If the warrant is sought in the absence of "reasonable" cause, the affidavit should incorporate the neutral administrative scheme that is the basis for inspecting that particular facility.

The inspector plays a crucial role in preparing the affidavit. As indicated earlier, the inspector must help prepare in detail the description of the premises and the items to be seized. Detail of the premises includes: address (lot and range number or longitude and latitude, if appropriate), description of surrounding area, position on the block, number of buildings and relation to one another, description of each building (including color, height, construction material), signs and other unique identifying characteristics.

The affidavit is signed by a person with first-hand knowledge of all the facts stated, although "hearsay" or "second-hand" knowledge can be used. In cases, where entry has been denied, the inspector who was denied entry usually will be the person to sign the affidavit. An affidavit is a sworn statement that must be notarized or sworn to before the magistrate. (See Exhibit 7-3.)

Prepare the Warrant for Signature

The warrant is a direction to an appropriate official to enter a specifically described location and perform specifically described inspection functions. The warrant also includes a "return of service," a "return" and an "inventory" of the items seized. Since the inspection is limited by the terms of the warrant, it is important to specify to the broadest extent possible the areas that are intended to be inspected, any records to be inspected, any samples to be taken, etc. While a broad warrant may be permissible in civil administrative inspections, a vague or overly broad warrant will probably not be signed by the magistrate.

The draft warrant should be ready for the magistrate's signature. Once signed, it is an enforceable document. Either following the magistrate's signature, or on a separate page, the warrant will contain a "return of service," which is used to report that the warrant was executed. This part of the warrant is to be dated and signed by the inspector after execution of the warrant and completion of the inspection.

Inspectors should accompany the attorneys to the judge if possible. Often questions arise which might allow the judge to swear in the inspector in order to take additional information to supplement the affidavit. (See Exhibit 7-4.)

Execute the Warrant

Warrants are executed by a physical entry onto the premises. Local law or court rules may also require handing a copy of the warrant to someone in possession, ownership, or control, or that a copy of the warrant be displayed in a prominent place. The original warrant should never be given up because it must be returned to the court. In the "return of service," whoever executes the warrant must certify to the court that service or notice was accomplished.

Once the warrant has been issued by the magistrate or judge, the inspector may proceed to the facility to begin or continue the inspection. The warrant should be executed without undue delay and within the number of days stated (standard is 10 days). Further, the warrant will usually direct that it be executed during daylight hours.

The inspector should be accompanied by a U.S. Marshal when executing a warrant. This is particularly true when there is a possibility that entry will be refused even with the warrant or where there is a likelihood of threats of violence. For reasons of personal safety and liability, the inspector should not attempt forcible entry of a facility on his or her own initiative.

If the facility representative refuses entry to an inspector holding a warrant, but not accompanied by a Marshal, the inspector should leave the premises, and inform the Assistant U.S. Attorney and the designated Regional official of the circumstances. They will take appropriate action, such as: (1) sending the inspector back to the facility accompanied by a Marshal, or (2) seeking a citation for contempt.

When the inspector is accompanied by a Marshal, the Marshal is principally charged with executing the warrant. If a refusal or threat to refuse occurs, the inspector should abide by the Marshal's decision to leave, seek forcible entry, or take other action.

Inspecting with the Warrant

The inspector should conduct the inspection in strict accordance with the warrant; the inspector is only authorized to seize, sample, or copy as authorized by the warrant, which in turn is affected by the substantive statutory language. If the statute requires that split samples must be offered or produced, or that records may only be copied and not taken, then these same restrictions will apply under the warrant. In any event, the inspector must keep a complete list of items taken or copied because this will be included in inventory returned with the warrant.

There are several points that inspectors should keep in mind when conducting an inspection with a warrant

- If questions arise in the field about the scope of the warrant, call the Regional attorneys. If the inspector discovers items which should have been included in the scope of the warrant but are not, the attorneys may be able to coordinate getting the judge to amend the warrant by telephone. If a few items are taken that are later found to be beyond the scope of the warrant, they will have to be returned. This will not normally affect the items taken pursuant to the warrant. However, if too many items are taken, it could result in voiding the entire warrant or suppression of all evidence.

- Apply the "plain view" doctrine, which means essentially that if a piece of evidence is where it could be seen by anyone in a lawful position or place to make such an observation, the information can be included as evidence.

- Keep an eye open for evidence of other wrongdoing. Such evidence is generally admissible as long as the inspector had lawful authority to be in a position to see it.

- As with all inspections, interview as many individuals as possible and reasonable to accomplish inspection objectives. There are no restrictions on asking questions, although there is no obligation for the facility's representatives or other employees to respond.

- As indicated, some EPA information-gathering statutory provisions [e.g., CWA 308(a)(4)(B)(ii), 33 U.S.C. 1318 (a)(4)(B)(iii)] appear to authorize EPA only to copy, and never to seize, records. In such situations, make provisions for copying or photographing the document on-site.

- If an inspector reasonably fears that a destruction or "sanitization" of records may occur during the time EPA is attempting to copy records on-site, then EPA on-site seizure and sequestration (restricting access to the records by anyone) is probably authorized. In extreme situations (e.g., where there is a real concern that documents will be destroyed if left on-site), documents should be seized if they are essential to the investigation. In such a case, it is better to run the risk of having the court rule that the documents must be returned to the possessor than it is to suffer their certain loss.

Return to the Warrant

The "return" made on a warrant is a written report informing the court when and where the warrant was executed, who participated, generally what was done, what items (if any) were carried away from the premises, and whether a copy of the warrant was given to someone (listing the person's name and address). The "return" includes a "return of service" indicating with whom a copy of the warrant was left or where it was posted; the "return" itself indicating when the inspection pursuant to the warrant was completed; and the "inventory" or list of items seized or copied. The inventory not only allows the court to help determine whether the inspection was within the scope of the warrant, but it also serves as the official record of items taken or copied.

After the inspection has been completed, the warrant must be returned to the magistrate. A return of the warrant, within the time restrictions required by the court, is essential. Magistrates usually impose a time limit in the warrant that is estimated to be long enough to complete the proposed activities. If the activities are not completed during the allowed time period, usually the warrant can be renewed or a new one issued based upon updated information.

Whoever executes the warrant (i.e., whoever performs the inspection or the U.S. Marshal) must sign the return form, and give it and the warrant to the U.S. Attorney. The U.S. Attorney will formally send the documents to the issuing magistrate or judge. As noted earlier, if anything has been physically taken from the premises, such as records or samples, an inventory of such items must be included in the return, and the inspector must be present to certify that the inventory is accurate and complete. (See Exhibits 7-5 and 7-6.)

Challenges to the Warrant

There is always the potential that a facility representative will challenge a warrant and the evidence obtained during an inspection performed under such circumstances. The warrant and all evidence gathered pursuant to it, or portions of evidence obtained in an otherwise valid warrant, can be overturned by the courts. Some of the typical bases for challenges (whether or not they are successful) to a warrant or evidence are listed below:

- Insufficient cause for issuance of the warrant.
- Insufficient affidavit supporting the warrant.
- Inaccurate information in the supporting affidavit.
- Insufficient description of the premises or of the items to be seized.
- Searches beyond the scope of the warrant.
- Failure to follow appropriate procedures executing or returning the warrant.

For a warrant or evidence obtained under it to be successfully challenged, in whole or in part, usually someone must make a prejudicial mistake at some point in the warrant process. If the mistake is sufficiently serious, an entire case could be lost.

The procedures for obtaining, executing, and returning a warrant are generally well-defined and established. These procedures must be followed as closely as possible.

Inspections Conducted by State Personnel

The Barlow's holding applies to inspections conducted by State personnel and to joint Federal/State inspections. Because some EPA programs are largely implemented through the States, it is essential that the Regions ensure that State-conducted inspections are conducted in compliance with Barlow's. State inspectors should be encouraged to consult with their legal advisors when there is a refusal to allow entry for inspection purposes. State personnel should be urged to contact the EPA Regional enforcement office when any questions concerning compliance with Barlow's arise.

With regard to specific procedures for States to follow, the important points to remember are: (1) the State should not seek forcible entry without a warrant or penalize an owner for insisting upon a warrant; and (2) the State legal system should explicitly provide a mechanism for issuance of civil administrative inspection warrants.

- If a State is enforcing an EPA program through a State statute, the warrant process should be conducted throughout the State judicial system.

- Where a State inspector is acting as a contractor to EPA, any refusal to allow entry should be handled as would a refusal to an EPA inspector.

- Where a State inspector is acting as a State employee with both Federal and State credentials, he or she should utilize State procedures unless the Federal warrant procedures are more advantageous.

The Regions should also assure that all States which enforce EPA programs report any denials of entry to the appropriate EPA enforcement attorney.

EXHIBIT 7-2

Model Application for Administrative Warrant

UNITED STATES DISTRICT COURT

__________ DISTRICT OF ________

IN THE MATTER OF:	)	Docket No. ________________
	)	
	)	Case No. ________________
	)	
	)	
	)	
	)	Application for an
	)	Administrative Warrant
	)	
	)	
	)	
	)	
	)	

NOW COMES a duly designated representative of the Administrator of the United States Environmental Protection Agency, by and through ______(name)______, United States Attorney for the ______ District of ________ and applies for an administrative warrant of entry, inspection, reproduction of records, photography, and sampling to determine compliance with the Toxic Substances Control Act, 15 U.S.C. §2601 et seq., and as authorized by Section 11 of the Act, 15 U.S.C. §2610, of the premises at (description of the premises) in the possession, custody, or control of the (name of company or owner). In support of this application, the duly designated representative of the Administrator respectfully submits an affidavit and a proposed warrant.

Respectfully submitted,

(Signature of U.S. Attorney)
United States Attorney for the
________ District of ________

______(Date)______

EXHIBIT 7-3

Model Affidavit in Support of Application for an Administrative Warrant

UNITED STATES DISTRICT COURT

__________ DISTRICT OF __________

IN THE MATTER OF:)
)
)
)
)
)
)
)
)
)
)
)
)

Docket No. ____________________

Case No. ____________________

Affidavit in Support of
Application for an
Administrative Warrant

State of ____________________:

County of ____________________:

(Name of Affiant) ______________________________, being duly sworn upon his(her) oath, according to law, deposes and says:

1. I am compliance/enforcement officer with the (division), United States Environmental Protection Agency, Region __________, and a duly designated representative of the Administrator of the United States Environmental Protection Agency for the purpose of conducting inspections pursuant to Section 11 of the Toxic Substances Control Act, 15 U.S.C. §2601 *et seq*. I hereby apply for an administrative warrant of entry, inspection, reproduction of records, photography, and sampling of the premises in the possession, custody, or control of the (name of company or owner).

2. (Name of establishment, premises, or conveyance) is a (describe business) that the undersigned compliance officer of the United States Environmental Protection Agency has reason to believe is in violation of the Toxic Substances Control Act. This belief is based upon the following facts and information: (Describe with particularity the reasons why a violation is suspected and the specific facts that give rise to probable cause or summarize the neutral administrative inspection scheme used to select the premises for inspection.)

EXHIBIT 7-3 (Continued)

3. The entry, inspection, reproduction of records, photography, and sampling will be carried out with reasonable promptness, and a copy of the results of analyses performed on any samples or material collected will be furnished to the owner or operator of the subject premises.

4. The compliance/enforcement officer may be accompanied by one or more compliance officers of the United States Environmental Protection Agency.

5. A return will be made to the court at the completion of the inspection, reproduction of records, photography, and sampling.

(Signature of Affiant) ____________

(Title ____________

(Division) ____________

Region ( )
United States Environmental
Protection Agency

Before me, a notary public of the State of ______________, County of ______________, on this ________ day of ____________, 19__, personally appeared ______________, and upon oath stated that the facts set forth in this application are true to his(her) knowledge and belief.

(Signature of Notary) ____________

A Notary Public of ____________

My Commission Expires ____________

EXHIBIT 7-4

Model Administrative Warrant

UNITED STATES DISTRICT COURT

__________DISTRICT OF_________

IN THE MATTER OF:	)	**Docket No. ________________**
	)	
	)	**Case No. __________________**
	)	
	)	
	)	
	)	**Warrant of Entry, Inspection, Reproduction of Records, Photography, and Sampling**
	)	
	)	
	)	
	)	
	)	
	)	

To ____(name)_____, _______(title)_______, United States Environmental Protection Agency, Region ____, and any other duly designated representatives of the Administrator of the United States Environmental Protection Agency:

Application having been made by the United States Attorney on behalf of the United States Environmental Protection Agency (EPA) for a warrant of entry, inspection, reproduction of records, photography, and sampling to determine compliance with regulations under the Toxic Substances Control Act, 15 U.S.C. §2601 et seq.; and, the court being satisfied that there has been a sufficient showing that reasonable legislative or administrative standards for conducting an inspection and investigation have been satisfied;

IT IS HEREBY ORDERED that EPA through its duly designated representatives ____(names of representatives)________ is hereby entitled and authorized to have entry upon the following described premises:

(Describe premises.)

IT IS FURTHER ORDERED that entry, inspection, reproduction of records, photography, and sampling shall be conducted during regular working hours or at other reasonable times, within reasonable limits, and in a reasonable manner.

IT IS FURTHER ORDERED that the warrant shall be for the purpose of conducting an entry, inspection, reproduction of records, photography, and sampling pursuant to 15 U.S.C. §2610 consisting of the following activities:

(Describe specific activities. For example:

(• Entry to, upon, or through the above-described premises including all buildings, structures, equipment, machines, devices, materials, and sites to inspect, sample, monitor, and investigate the said premises.

(• Access to and reproduction of all records pertaining to or relating to the use, storage, handling, and disposal of polychlorinated biphenyls (PCBs).

(• Inspection, including photographing, of any equipment, methods, or sites used to store, or dispose of PCBs at the facility.)

IT IS FURTHER ORDERED that, if any property is seized, the duly designated representative or representatives shall leave a receipt for the property taken and prepare a written inventory of the property seized and return this warrant with the written inventory before me within 10 days from the date of the inspection.

IT IS FURTHER ORDERED that this warrant shall be valid for a period of 10 days from the date of this warrant.

IT IS FURTHER ORDERED that the United States Marshal is hereby authorized and directed to assist the representatives of the United States Environmental Protection Agency in such manner as may be reasonable, necessary, and required.

(Signature of Magistrate)

(Date)

EXHIBIT 7-5

RETURN OF SERVICE

I hereby certify that a copy of the within warrant was served by presenting a copy of same to (facility owner or agent) on (date) at (location of establishment or place).

(Signature of person making service)

(Official title)

RETURN

Inspection of the establishment described in this warrant was completed on (date).

(Signature of person conducting the inspection)

EXHIBIT 7-6

Model Affidavit of Service

AFFIDAVIT OF SERVICE
UNITED STATES OF AMERICA
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

I hereby certify that being a person over 18 years of age, I served a copy of the within subpoena:

(check one)
( ) in person
( ) by registered mail, return receipt requested
( ) by leaving the copy at principal place of business, which is

____
____
____

( ) (write in other method, such as leaving it at dwelling, serving registered agent of corporation, etc.)

on the person named in the subpoena on (month, day, and year).

(Signature of person making service)

(Name of person making service)

(Title, if any)

7D INFORMATION-GATHERING TOOLS

A wide range of tools is available to EPA for use in gathering information about facility compliance with environmental requirements. Most directly related to the conduct of inspections are those authorities involving a physical intrusion onto premises, such as the Agency's right to enter and inspect premises and to obtain warrants for entry. These authorities are discussed in the previous sections of this chapter.

Compliance information can also be gathered through the use of other investigative tools that do not necessarily involve a physical intrusion upon someone's premises. The four principal mechanisms are subpoenas, warrants, orders, and requests. The Agency sometimes uses these authorities to gain information in advance of or in connection with an inspection or enforcement investigation.

Authority to obtain (compel persons to provide) information through subpoenas and warrants exists for the most part in general criminal and civil law, although specific provisions may also exist in particular environmental statutes. Authority to compel information through orders and requests is derived from the specific environmental statute, provided that Congress included such provision(s). This unit briefly discusses these four major means of compelling information. A matrix identifying these authorities contained in environmental statutes appears at the end of the chapter (Exhibit 7-7).

Administrative Investigative Subpoenas

An administrative investigative subpoena (referred to in the remainder of this section as "AIS") is a non-adjudicative command issued by an agency to compel the production of tangible information (e.g., records or documents) or the appearance of a person for the purpose of obtaining oral information. An AIS is "non-adjudicative" by definition; that is, it is issued in connection with an agency's inspection or investigative activities prior to or separate from an adjudicatory proceeding. A subpoena issued in connection with adjudicatory proceedings is called an "adjunct" subpoena. Since this section deals with obtaining information in relation to inspections, adjunct subpoenas are not discussed further, although there are occasional references to them in relation to AIS.

Beginning with the Interstate Commerce Commission and the Federal Trade Commission, Congress has given to various Federal agencies one or both types of subpoena powers. Frequently, powers to use both types of subpoena are conferred by a single statutory phrase such as "...in carrying out the provisions of this Act ...," or the words "...in connection with a proceeding under this section ...."

Permissible addressees of AIS are typically any person who may have relevant information. In short, the range of persons subject to AIS is typically equally as extensive as the range of persons subject to discovery under the Rules of Civil Procedure. Some arguments have been made that only "regulatees" are subject to AIS. However, it may be said that unless the statute is otherwise restrictive, an AIS is addressable to any person who is genuinely believed to have relevant information.

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Rules and Restrictions Regarding AIS

Some traditional rules and restrictions have been developed by the courts governing "subpoenas" by name, but without any careful distinction between adjunct subpoenas and AIS. They do not apply in every respect to AIS, but they are described here to provide a general understanding of the boundaries of subpoenas. Traditionally, a subpoena may properly and lawfully command any one or combination of the following -- and no more:

- Future attendance of a human (as an individual addressee or as an addressee organization's representative) at a stated time and place, including remaining in attendance until excused by the subpoena issuer;
- The taking of an oath at such time and place stating that only truthful answers will be given to questions put there;
- The giving of oral (but not written) answers under oath to any lawful questions put at such time and place; and/or
- The delivery of pre-segregated and sorted tangible items, within the addressee's possession or control, such as records or documents, that pre-existed the service of the subpoena.

"Excursions" beyond the foregoing commands are likely to be treated rather suspiciously by the courts. For example, a subpoena requiring appearance "forthwith" rather than "in the near future" generally is regarded as "impolite" by the courts; such subpoenas leave little time for the addressee to seek counsel. Nevertheless, there does not appear to be a constitutional bar to "forthwith" subpoenas (whether AIS or adjunct subpoenas), particularly where there is a concern that the subpoenaed person might leave the area and be difficult to locate. Another excursion example would be a subpoena requiring the addressee to bring a "sample" of pre-existing fungible or replicated materials. A final excursion example would be a subpoena requiring the addressee to bring a "summary" of a pre-existing record. Each of these slight "excursions" beyond familiar practices may raise legal challenges. However, it should be noted that the court in EEOC v. Maryland Cup Corp., 785 F.2nd 471, 478-479 (4th Cir. 1986) held that a request for a respondent to create a document not previously existing is not unduly burdensome.

AIS also may be used in certain circumstances in criminal cases. Under statutes where EPA has power to enforce both criminal and civil liabilities, if that statute also confers AIS issuance powers, it is not a valid objection that EPA is using the AIS to inquire into matters that may constitute criminal activity.

Judicial Enforcement of AIS

The act of issuing an AIS is "agency action" under the Administrative Procedures Act, the validity of which is tested under the "arbitrary, capricious, or abuse of discretion" standard of 5 U.S.C. Section 706(2)(A).

Consistent with 5 U.S.C. Section 706(2)(A), courts have developed a specialized application of that standard for AIS. Generally, an administrative investigative subpoena will be judicially enforced to the extent that it appears that:

- The investigation is legitimate;
- The subpoena is not needlessly broad; and
- The records sought are reasonably relevant.

Limitations of AIS

There are shortcomings inherent in subpoenas when using them to obtain destructible or alterable items such as records and documents. Their advance notice feature enables a subpoena respondent to shred, destroy, hide, or otherwise sanitize such items while he engages in delaying litigation trying to nullify or to restrict the subpoena. How frequently this occurs is not known, but it has happened, despite the fact that a respondent has a legal duty to keep the subpoenaed items safe until all litigation concerning them has been resolved.

Computer technology has immeasurably enhanced the sanitizing ability respondents have when an AIS is served. With the press of a finger on a keyboard, information can be electronically transferred to other locations with minimum risk of detection.

Therefore, the AIS as an investigative tool to uncover tangible items is becoming increasingly less, not more, useful. Warrants, on the other hand, partially disable a possessor from sanitizing subpoenaed items because officials with warrants simply show up, enter, peruse, and copy or carry away the records or documents or tangible items before sanitization can occur.

(See Exhibit 7-8.)

Warrants

Warrants usually are thought of in terms of their use to gain entry to a facility or site. However, government officials are beginning to rely increasingly on warrants for the purposes of obtaining tangible objects, records, and documents. This increased use arises from concern over the potential loss or destruction of not only subpoenaed items, but also of information sought under administrative orders or requests. A search warrant may also be obtained to gain entry to a wetlands site to verify that CWA Section 404 jurisdiction applies to the site.

Rules and Restrictions Regarding Warrants

Warrants in non-criminal inspections and investigations are governed mainly by the same legal principles as criminal warrants. The major difference is that criminal warrants operate under established court rules (Federal Rules of Criminal Procedure Rule 41), while the use of civil warrants and their procedures essentially have evolved through case law. Civil warrants also may carry an easier or different burden of proof than in criminal cases (e.g., a standard inspection scheme vs. probable cause to believe that a crime has been committed). (Chapter 7C discusses warrants in greater detail.)

Judicial Enforcement of Warrants

Warrants for the purpose of obtaining tangible items, records, and documents are issued by a court. As such, they are enforceable by the court.

Limitations of Warrants

Warrants are superior to AIS and administrative orders and requests in that they can prevent, or at least minimize, the loss or destruction of desired information. In addition, the specificity required to obtain a warrant generally eliminates any ambiguity about what is being sought. However, the fact that a warrant must be obtained through the court and served in person limits its efficient use to those instances where significant violations are suspected and there is reason to believe that valuable information might be lost or destroyed in the absence of warrant action. In addition, warrants may not be used to compel written or oral statements.

Information-Gathering Orders

Subpoenas and warrants are clearly insufficient as the sole compulsory means of obtaining all the investigative information needed by a modern regulatory agency such as EPA. Therefore, Congress empowered EPA to issue information-gathering orders which are far more broad than subpoenas regarding what they may direct to be done, but which are sometimes more narrow than subpoenas in regard to who may be the addressee of such a command. These information-gathering orders (often referred to in the remainder of this unit simply as "orders"), like AIS, are non-adjudicative, administratively-issued government commands.

The extent of what may be commanded through an order generally is greater than what may be commanded under an AIS. For example, CWA Section 308 enables EPA to command that samples be taken and monitoring be performed, and that the order recipient "provide information." In a general sense, an information-gathering order does as much as an AIS, but also can do much more. For example, EPA has long used such orders under CWA Section 308 and CAA Section 114 to require the addressee to give written answers to written questions, provide originals or true copies of records and documents, and provide narrative descriptions of, and explanations for, previous events. Since statutory language authorizing information-gathering orders usually does not mention "testimony," it is debatable whether these orders can command responses "under oath." If not, then in that regard, these orders are theoretically less coercive than AIS. However, submission of a false answer may nevertheless subject the respondent to criminal penalties.

It may be possible to use information-gathering orders to compel and obtain oral interviews, that is, to command unsworn oral answers to oral questions put by EPA. Certainly, the giving of oral answers is "providing information," and EPA has the authority to require the respondent to interview its employees and agents who may have knowledge of the information sought and incorporate those persons' replies into the formal response. However, EPA has seldom used orders for the purpose of directly obtaining oral interviews, and the issue has not been litigated.

Rules and Restrictions Regarding Orders

In U.S. v. Tivian Laboratories, Inc., 589 F2d 49 (1st Cir. 1978) the Court of Appeals turned to AIS cases for rules with which to determine the propriety and enforceability of an information-gathering order where it is used in a manner very similar to an AIS. The similarity of such an order to an AIS was apparent to the court. The orders in this case were issued in 1975 by EPA pursuant to CWA Section 308 and CAA Section 114.

While noting that penalty possibilities were present for the orders, the Court nonetheless ruled that the orders were valid under rules which were applicable explicitly to AIS. Consequently, the orders were enforced.

It is possible, however, that a court may overlook the fact that an information-gathering order in a particular instance is commanding essentially no more than an AIS would have, and apply the pre-issuance administrative record rules applicable to other types of administrative orders (e.g., corrective action orders). Given that an information-gathering order in certain circumstances may be issued before an administrative record appropriately would be created, such a stance by a court would render the information-gathering order invalid and unenforceable in those cases.

Nevertheless, it seems clear that an information-gathering order is governed by AIS rules when the order does no more than command activities which an AIS could command.

Judicial Enforcement of Information-Gathering Orders

See above discussion "Rules and Restrictions Regarding Orders."

Limitations of Information-Gathering Orders

As discussed previously, it is questionable whether orders may be used to obtain oral information. Unlike warrants, orders also have little, if any, power to prevent the recipient from destroying information. Nor can they prevent the recipient from withholding information that the Agency does not already know -- or may not be able to know otherwise -- is in the recipient's possession.

While orders are inherently more powerful than AIS as to "what may be commanded," they are frequently addressable to fewer persons than are AIS. The order powers of EPA frequently cannot be exercised ubiquitously (as AIS powers frequently may be). Instead, some orders powers are so restricted by statutory language that orders can be issued only to certain persons. For example, they may be limited to "regulatees" (i.e., persons subject to one or more of the requirements of the statute involved). The language in CWA Section 308 restricts EPA's issuance of orders under the section to an addressee who is an "owner or operator of any point source." Only CERCLA Section 104(e)(2) authorizes issuance of information-gathering orders to a group of addressees equally as broad as the typical group of permissible addressees for AIS.

Requests

Another mechanism through which information may be obtained from a person or facility is the statutory device explicitly named a "request." For example, RCRA Sections 3007 and 9005 contain such authority.

The term "request" is misleading. In legal effect, the statute authorizes a "demand" to be communicated to an addressee by EPA. The "demand" triggers a statutory duty on the addressee's part to comply, and anyone who fails without sufficient cause to comply with a request ("demand") can be subject to significant and substantial civil penalties.

The fundamental difference between requests and AIS is that conceptually, the request is only a trigger of a legal duty directly imposed by the statute on the request respondent, while an AIS (and also an information-gathering order) itself is regarded as imposing the legal duty. The distinction is at least abstract, and may or may not have pragmatic consequences.

Requests have been used to obtain records, documents, reports, and explanations. As with orders, however, there have been few occasions as yet for EPA to use requests to obtain oral statements or oral answers to questions.

Rules and Restrictions Regarding Requests

The same rules and restrictions apply to requests as to orders.

Judicial Enforcement of Requests

The same provisions for judicial enforcement apply to requests as to orders.

Limitations of Requests

The same limitations apply to requests as to orders with respect to their ability to obtain oral information, and their inability to prevent destruction or withholding of information.

Similarly, the range of permissible addressees for requests is typically narrower than the range of addressees for AIS. Under RCRA Section 3007, the group of permissible addressees is any person "...who generates, stores, treats, transports, disposes or otherwise handles or has handled hazardous wastes...." While that group is rather large, it is not as large as the typical group of addressees to whom AIS may be addressed. AIS addressees typically include anyone believed to hold relevant information or tangible items.

Summary

Among EPA administrative investigative tools, AIS and orders are the most readily interchangeable and overlapping so that one can properly substitute partially for the other. The request is a unique device, but it has nearly the same legal effect and equivalent substitutional value as an order.

Both orders and requests typically carry pre-suit monetary civil penalties for disobedience. An AIS typically does not carry pre-suit penalties for disobedience.

When an order or request commands more than what an AIS may traditionally command, then it is more likely that an enforcing court may inquire into EPA's pre-issuance administrative record to satisfy itself that the matters commanded in the order or request are not arbitrary, capricious, or an abuse of discretion.

However, when an order or request commands nothing more than what an AIS could command of the respondent, then the traditional AIS enforcement rules will be applied to enforce the order or request.

Forcible or non-consensual entry onto premises may not lawfully be made when a warrant is required, even if the premises possessor is presented with an AIS, order, or request commanding the possessor to allow such an entry.

While a civil warrant may serve as a partial substitute for an AIS, order, or request in limited circumstances (e.g., in obtaining possession of pre-existing items), no AIS, order, or request can properly substitute fully for a civil warrant. The warrant is judicially issued on specified showings and it "confirms," "validates," and "credentializes," but it does not command a possessor to do something, whereas the AIS and order both "command," and the request creates a "demand."

EXHIBIT 7-7

SUMMARY OF INFORMATION GATHERING TOOLS

LAW	SUBPOENAS	ORDERS	REQUESTS	ENTRY RIGHTS OR WARRANTS
Clean Air Act	CAA 321(c) 42 USC 7621(c)	CAA 114 303 42 USC 7414 7603	CAA208 114	CAA 114 42 USC 7414
Clean Water Act	CWA 507(e) 33 USC 1367(e)	CWA 308 504 33 USC 1318 1364	CWA 308	CWA 308 33 USC 1318
Toxic Substances Control Act	TSCA 11(c) 15 USC 2610(c)	None	None	TSCA 11(a) 15 USC 2610(a)
Resource Conservation and Recovery Act	RCRA 3008(b) 9006(b) 7001(e) 42 USC 6928(b) 6991(e)(b) 6971(e)	RCRA 3013 7003 42 USC 6934 6973	RCRA 3007 9006 42 USC 6927 6991 d	RCRA 3007 3013 9006 42 USC 6927 6934 6991d
Safe Drinking Water Act	SDWA 1423(C)(8) 42 USC 300h-2(c)(8)	SDWA 1431 42 USC 300i	SDWA 1445 42 USC 300j-4	SDWA 1445 42 USC 300 j-4
Comprehensive Environmental Response, Compensation, and Liability Act	CERCLA 122(e)(3)(B) 42 USC 9622(e)(3)(B)	CERCLA 104(e) (2) 106 42 USC 9604(e)(2) 9606	QUERY	CERCLA 104(e)(4) 104(e)(6) 42 USC 9604(e)(4) 9604(E)(6)
Federal Insecticide Fungicide Rodenticide Act	None	None	None	FIFRA 9(a) 9(b) 7 USC 136g(a) 136g(b)
Noise Control Act	NCA 16(d) 33 USC 4915(d)	None	None	None

EXHIBIT 7-8

Sample Cover Letter

UNITED STATES
ENVIRONMENTAL PROTECTION AGENCY
Office of Pesticides and Toxic Substances
Washington, D.C. 20460

Mr. T. K. H. Firetog, Jr.
President
Firetog Industries, Inc.
36 Sunshine Drive
Clark, MA 02856

Dear Mr. Firetog:

An FYI submission filed by Firetog Industries, Inc. (dated October 31, 1982) to EPA concerning toxicity data on your product, Heathergard LF-1, raises a number of questions regarding Firetog Industries' compliance with Section 8(e) of the Toxic Substances Control Act (TSCA). To aid in our investigation, we have enclosed a subpoena _duces tecum_ with this letter. This subpoena requires submitting certain documents and answering a number of questions concerning whether Firetog Industries, Inc., has complied with Section 8(e) of TSCA.

The enclosed subpoena does not require your attendance at this time, provided that the documents, and other information requested, are produced at or before the date required by the subpoena.

Sincerely,

Joe A. Doe
Assistant Administrator for
Pesticides and Toxic Substances

Enclosure

Reproduced from best available copy.

EXHIBIT 7-9

Sample Subpoena *Duces Tecum*

SUBPOENA *DUCES TECUM*

UNITED STATES OF AMERICA

U.S. ENVIRONMENTAL PROTECTION AGENCY

Mr. T. K. H. Firetog, Jr.
President
Firetog Industries, Inc.
36 Sunshine Drive
Clark, MA 02856

To further the Environmental Protection Agency's investigation of your company's compliance with Section 8(e) of the Toxic Substances Control Act (TSCA), 7 U.S.C. §2607(e), you are hereby required to appear before the Assistant Administrator for Pesticides and Toxic Substances in room _______, 401 M St., S.W., Washington, D.C., on ____________, at _____, and to bring with you the reports, papers, documents, answers to questions, and other information requested in the attached Specifications.

If you so desire, you may have your representative produce, at the time and place aforesaid, the items or information requested in the Specifications.

If you consider any of the documents or other information that you submit in response to this subpoena to be confidential business information, please mark each page containing such confidential business information. The mark may be the word "confidential," or the phrase "proprietary information," or other similar marking. If you wish to make a claim of confidentiality for this information, you must do so at this time. Any documents or other information not marked confidential will be available to the public. That portion of your response to the subpoena marked as confidential will be handled in accordance with EPA's public information regulations (40 C.F.R. Part 2).

Issued under the authority of 15 U.S.C. §2610(c), this _____ day of ________ 19___.

United States Environmental
Protection Agency, by

John A. Doe
Assistant Administrator for
Pesticides and Toxic Substances

Enclosure

SPECIFICATIONS

I. Instructions

1. This subpoena covers all documents described below in the possession of Firetog Industries, Inc., and subject to its control or custody.

2. For the purpose of complying with this subpoena, the word "document" means the original or a true, correct, and complete copy and all nonidentical copies of any report, paper, note, letter, correspondence, memorandum, study, data compilation, circular, work sheet, minutes, test result, laboratory note or memorandum, analysis or other transcription of information, whether written, typed, printed, recorded on tape, microfilm, or other device, regardless of whether circulated within the company or to outsiders, regardless of whether generated within or without the company, and regardless of whether in the possession of your company or any agent acting in its behalf.

3. Each document submitted shall be clearly and precisely identified as to its title, author, date of preparation, and subject matter.

4. If neither the original nor a copy of any requested document is currently in the possession or control of your company for any reason, identify the document by date, title, subject matter, the name of individuals who prepared and received it and the name and address of the person who currently has possession or control of that document. If the document no longer exists, explain why. If the document has been destroyed, identify the name of the individual who ordered it destroyed, when the order was issued, and why.

5. The authority under which this subpoena is issued, 15 U.S.C. §2610(c), authorizes the Administrator to require answers to questions as well as the submittal of documents. Answer all questions completely. Where necessary, documents may be submitted to answer all or part of any questions asked in these Specifications.

II. Information and Documents Requested

1. With respect to Exhibits A, B, C, D, and E, state:

   a) When each of the reports was received by Firetog Industries, Inc.;

   b) The individual (or individuals) within Firetog Industries, Inc., who reviewed each of the reports;

   c) The title and primary responsibilities of the individuals listed in 1(b) as of the date when they reviewed the reports;

EXHIBIT 7-9 (Continued)

d) The current title and primary responsibilities of the individuals listed in 1(b); and

e) The dates when those individuals listed in 1(b) reviewed each of the exhibits.

2. Submit any documents prepared or received by Firetog Industries, Inc., concerning Exhibits A, B, C, D, and E, or the subject matter of those reports.

CHAPTER 8

EVIDENCE

Collecting and documenting the evidence needed to substantiate suspected violations is a core inspection activity. Evidence is used to support the development of an enforcement case as well as to help the inspector prepare for and give testimony when required. This chapter focuses on assuring that the evidence collected on an inspection will be admissible in a judicial proceeding. Other chapters in this guide address techniques for assessing compliance and provide detailed procedures for evidence documentation.

Of course, not every inspection results in an enforcement case in which the inspector is called upon to testify. However, an understanding of the rules governing admissibility of evidence and the kind of testimony the inspector might be expected to give will help to explain the need for adherence to proper procedures in collecting and handling evidence. These procedures, described generally in the second part of this chapter and discussed in detail in Chapters 12, 13, 14, and 15, are designed to assure the admissibility of evidence and facilitate the inspector's ability to testify about it if necessary. By following these procedures as a routine matter, the inspector ensures that the Agency's options for taking the appropriate enforcement action against a violator are not limited by a procedural weakness. In the event that litigation ensues, the Agency will be assured that important evidence will not be excluded from consideration.

This chapter underscores the point made in Chapter 6 that the potential for enforcement through litigation should be uppermost in the inspector's mind in all inspection activities. Where the considerations and procedures set out in this chapter are applied, the inspector can be relatively certain that the evidence obtained will stand up to the most rigorous tests of validity. This is important not only for administrative, civil, and criminal actions; this evidence may also be the basis on which EPA undertakes further investigation, issues other information-gathering documents, or issues orders.

8A INTRODUCTION TO EVIDENCE

Definition and Types of Evidence

Evidence is the means or process by which any matter of fact that is being investigated (e.g., the existence of a violation) may be established or disproved. It is also any information, or proof, which clarifies or helps establish the truth of the fact or point in issue. The law of evidence embraces those rules which determine which evidence is to be admitted or rejected in a hearing or trial and what weight is to be given to evidence which is admitted.

There are five types of evidence:

- Testimonial - A person's reported sense impressions and the opinions the person formed based on them (e.g., the inspector's testimony).
- Real - The object, item or thing itself (e.g., contaminated dirt).
- Documentary - A "document" having significance and effect due to its content (e.g., reports messages, logs, accounting ledgers, computer printouts, manuals, guidance, tape recordings).
- Demonstrative - Something other than the above which is prepared or selected to illustrate or otherwise make some relevant fact clearer or easier to understand (e.g., photographs, diagrams, maps, summaries, video tapes, models).
- Judicially noticed - Matters about which there could be no dispute and become evidence by virtue of their being so noticed by a judge (e.g., scientifically accepted testing devices, geographic locations, matters of common knowledge).

During the course of an inspection, inspectors may make observations, conduct interviews, obtain statements, review and copy records, take physical samples, take photographs, and write notes in field logbooks. The testimony of the inspector, the samples and photographs, the notes and reports, and the sample tags and chain-of-custody forms, may all become evidence, as described by the first four types of evidence above. It is primarily through the testimony of the inspector that all of the other types of evidence will be properly identified, discussed, and introduced into evidence.

Though not necessarily associated with a specific violation, inspectors also document information relevant to establishing the legality of the inspection itself. Field logbook notes regarding entry procedures, signed items such as required notices, entry warrants, etc., are evidence that the inspector conducted a lawful inspection and had the authority to collect the evidence supporting the alleged violation(s). These matters are more thoroughly discussed in Chapter 7.

And as discussed in Chapter 6, inspectors should bear in mind that virtually every piece of paper -- including field logbooks and notes -- associated with the inspection is likely to be seen by the opposing side as part of the discovery process. They will be used to prepare the defense and, if flaws are found, may be used as evidence against the government's case. For this reason, it is essential that such materials contain facts only; no personal opinions or conclusions of law should be included in inspector notes or reports.

Federal Rules of Evidence - The Hurdles

In Federal civil and criminal judicial proceedings, the admissibility of evidence is governed by the Federal Rules of Evidence (FRE). While they apply only by analogy to administrative hearings, such as those conducted by EPA administrative law judges, the concepts they represent are basic and helpful to the inspector's understanding of the evidentiary hurdles he or she must help surmount in order to get the products of the inspection admitted. One EPA attorney describes the Federal Rules of Evidence as "quality assurance for Truth."

The most general and principal tests which must be met for the admission of all types of evidence are: (1) authenticity; (2) relevance; and (3) foundation.

- Authenticity or identification means that the evidence must be demonstrated to be what it is claimed to be (e.g., the sample taken during the inspection) (FRE Series 900).

- Relevance means essentially that the evidence must pertain to the fact in question (e.g., the violation), tending to make the existence of the fact either more or less probable than would be the case without the evidence (FRE Series 400).

- Foundation means essentially that preliminary evidence must be presented first in sufficient detail to sustain a finding that the additional evidence is what the proponent says it is (e.g., a witness' testimony clearly showing personal knowledge of the matter being testified to) (Rule 602).

Chapter 17B contains a detailed discussion on preparing for and appearing as a witness. The remainder of this chapter focuses on issues associated with establishing the admissibility of all types of evidence collected by the inspector.

Illustration of Evidence Concepts

The concepts of authenticity, relevance, and foundation can be illustrated by answering a question such as:

> "Who cares if what you are holding is contaminated dirt unless you can show that particular dirt came from the particular site involved in this case, and not from somewhere else?"
>
> In the illustration, it is admissibility of the "gunk" in the sampling container that is at issue. Subject to their connection with the "gunk" all other evidence (e.g., the "gunk" test results) are then admissible.

The areas covered in admitting the evidence would not necessarily be presented in the exact order of this illustration during testimony.

Discovery Conditions and Surroundings

This might be a narrative about what activities were performed at the site, how the item in question (e.g., the "gunk") was discovered, and the appearances of physical objects in the immediate vicinity. Aiding would be notations in the field logbook.

Discovery Location of the Item

The item was collected at a particular place at a particular time. Aiding would be photographs of the area and exact sample site, complete description of the area and conditions (as noted in logbook).

> The inspector testifies that the container of "gunk" was picked up on the relevant date at the relevant site about 50 paces southwest of the office door, and that he has a photograph of the area taken at the time. He also testifies that the "gunk" was oozing out of a large electrical capacitor which he also has a photograph of.

General Identity or Sameness

The item has the same characteristics as the item the inspector collected. Aiding in positive identification are some routine documentation procedures such as sample tags with the inspector's signature and date; notations in field logbook regarding color, consistency, other sensory perceptions about the sample.

> The inspector testifies that the initials and the date on the sample bottle are his and that he put them there; he notes that the color and consistency of the "gunk" inside the container being offered as evidence are the same as he remembers from when he collected the sample. He testifies that there is less "gunk" in the container than he put in there, however.

Precautions to Assure Identity

This would include a description of any measures, other than those already mentioned, that were taken at the time to ensure later identification of the item. This might include such information as a description of initiation of chain-of-custody procedures.

> The inspector testifies that after filling the container and initiating chain-of-custody, he kept it in his custody and carried and protected the sample, and gave it to the lab person later that day. The inspector did not see the sample again until just before the hearing.

Present Conditions or Features Which Vary

This would answer whether there are any features or conditions about the item being offered as evidence that vary from what was collected.

> As indicated, the inspector testifies that the exhibit appears to be the same container of "gunk" he collected at the site on the relevant date, but that the amount of "gunk" is presently less than what he put in the container.

Representativeness of Item

Establishes the relationship of the item offered as evidence to other items. This testimony might include a discussion of the sampling strategy employed to select the particular sample(s).

> The inspector testifies that there were 88 other large electrical capacitors at the same site on the relevant date which were also oozing "gunk" of the same color, viscosity, and odor. He took the same type of sample of the same amount of "gunk" from each using the same identifying precautions and marking procedures.

Connecting Up -- The Chain of Custody

This includes the meticulous process of showing the succession of persons who handled and/or had access to the exhibit.

> The lab person testifies about how she received the previously admitted container from the inspector at the laboratory, and she, as an experienced chemist, used all the EPA approved and other authoritative techniques to analyze the missing portion of the "gunk." She then describes how she took raw data notes of her analysis work, the printouts from the various machines she used (all initialed), and with the "gunk"-filled container, she locked them in her safe. Only she has a key to the safe.
>
> She authenticates her notes and printouts properly and they are offered into evidence. Because the connection of the "gunk" to the site has already been established, her testimony and documents regarding the test results are relevant and admissible as well. The Court is satisfied.
>
> If the Government has not done so already, the photographs will be admitted as well as long as the inspector testified that they did "fairly and accurately" reflect what the "gunk" looked like on the date in question (thus authenticating, laying the foundation, and showing the relevancy of these pieces of evidence as well).

8B DOCUMENTING EVIDENCE

The preceding discussion explained the concept of authenticating evidence, demonstrating the relevance of and laying the foundation for evidence, and the role that various documentation procedures can play in assuring that evidence collected will be admissible in court. Through the years, EPA offices have developed standard procedures for documenting evidence collection activities such as sample collection and handling, taking statements from facility personnel, copying records, and taking photographs.

The general documentation procedures below contain the basic elements that are needed to be able to trace each particular piece of evidence back to the relevant site, date, and conditions where and when it was collected; the discussion also includes references to the relevant Rule under the Federal Rules of Evidence. More specific procedures are contained in the chapters covering individual aspects of the inspection (Chapter 12, Records Review; Chapter 13, Physical Samples; Chapter 14, Interviews; Chapter 15, Observations and Illustrations).

There may be slight variations by EPA Region and/or program in how particular steps in these procedures are carried out, but the intent represented by each step remains. Understanding the purpose behind these procedures will aid inspectors in determining how to document types of evidence not covered here and to acceptably document evidence when, for some reason, routine procedures cannot be followed exactly.

Federal Rules of Evidence - The Helpers

The Federal Rules of Evidence (FRE) treat all evidence, other than real evidence (the "gunk"), as statements, whether they be verbal (e.g., the testimony of the inspector), written (all documents, reports, sample tags, etc.), or nonverbal conduct (gestures). The FRE define "hearsay" as "a statement, other than one made by the declarant while testifying at the trial or hearing, offered in evidence to prove the truth of the matter asserted." (FRE 801). (In laymans's terms, Webster's Dictionary defines hearsay evidence as: "Evidence based not on a witness' personal knowledge but on matters told him by another.") The Rules then say that all hearsay is not admissible; and by definition make prior statements of a witness or admissions by a party-opponent not hearsay. Were the rules to stop there, virtually everything would be inadmissible. As with many rules, it is the exceptions to the rule which are, in effect, the rule.

The inspector's work product in any given case includes all written documentation (field notes, logbook, sample tags, chain-of-custody forms, receipts, reports), all items taken from the facility inspected (including samples and documents), all recorded items (including photographs, video, and aural recordings), and the inspector's memory of the incident. The following discussion explains some of the hearsay exceptions which help the inspector tell his or her story through testimony and documented evidence at trial.

The Inspector's Written Documentation

In order to ensure that the documents they create in the course of an inspection are admissible as evidence later, the inspector must create them routinely and contemporaneously with the events being described.

Field Logbook

The inspector's notes in field, preferably contained in a bound logbook, are the core of all inspection activities. The logbook contains entry information (which demonstrates lawful entry) as well as notes on every aspect of the inspection correlated with evidence gathered at the site such as physical samples, interviews, photographs, and copies of documents. (See also Chapter 15A.)

While the logbook should be a comprehensive roadmap to all that occurred during the inspection, it need not duplicate all that is already contained on the sample tags or the chain-of-custody form, for example. The entries should be concise but detailed enough to allow the inspector to remember what was meant by the notation shortly thereafter when creating a narrative report, or months later when the matter may come to trial. As with inspection reports, the entries need to be accurate and objective, with no legal conclusions drawn. The inspector should avoid noting his or her personal opinions on matters not relevant to the inspection.

Inspection Report

In the broadest terms, the inspection "report" includes all of the documents described above which comprise the inspector's work product. The "report" as used in the context of this immediate discussion is the narrative summary which expands on the details noted in the logbook and adds the other relevant and important details which the inspector further remembers.

The report should be written as soon as possible after an inspection and be as thorough as possible. As with logbooks, all information should be accurate, objective, relevant, and cover all major items. The other documents of the inspection (e.g., photographs, chain-of-custody forms, notices, receipts) should be referenced (see also Chapter 17A). The information should be based on first-hand knowledge, or note specifically who or what is the source of that information. While it is advisable to retain all the notes on which the report is based, it is not fatal to fail to do so except in some criminal cases, and then depending on the nature of the information recorded. Certainly, logbooks should be retained, if only to bolster the inspector's credibility and ability to recall accurately any given point.

To the extent that the inspector is expected to draw conclusions about the compliance status of a facility, it is recommended that these be set forth on a separate page from the report and addressed to either the Office of Regional Counsel or the inspector's supervisor, thus making it possible to invoke the attorney-client or deliberative process privileges in an attempt to protect such documents from disclosure. Where possible, it is important to maintain the inspector's duties to include detection, gathering, and documentation of the facts, rather than making decisions about compliance status or violations. As explained in Chapter 19A, the neutral, detached inspector has greater credibility.

The above recommendations are made regarding the inspector's documentation because some of the most applicable evidentiary rules require it. The inspector will review and refresh his or her recollection with the case file in preparation for depositions or his or her testimony. If the case file is used in this way, the other side is entitled to obtain all that the inspector reviewed (FRE 612). The other side can also introduce portions of these documents which relate to the testimony of the inspector, move to excise any portion not so related, and even cross-examine the inspector about the contents without necessarily showing the document to the inspector beforehand (FRE (613(a))). Obviously, the inspector must bear these eventualities in mind when creating the documents.

Frequently, the inspector will not have a present recollection about the inspection even after refreshing his or her recollection with the documents. The logbook and report themselves may be admitted into evidence in lieu of the inspector's testimony even if the inspector is present as long as the proper foundation is laid. FRE 803(5), Recorded Recollection, has the following criteria:

- The witness now has insufficient recollection;
- The document was made or adopted by the witness;
- The document was made when the witness' memory was fresh; and
- The document reflects knowledge correctly.

As the rule indicates, not only must the information be accurate, it must also have been committed to writing when the inspector's memory was fresh (which ensured accuracy). The inspection documents must be created contemporaneously with, or shortly after the inspection.

Note that this rule allows for the documents to be "adopted." This means that the inspector, while testifying, can rely on the documents others have created, as long as the above requirements are met. Frequently, this is necessary when there are a number of inspectors involved in an inspection and each one is responsible for only some of the documents. To allow this aspect of the rule to be used, the inspectors should review for accuracy and affirm each others' documents near in time to the events described.

Other hearsay exceptions helpful for admitting the inspector's documentation is the Record of Regulatory Conducted Activity, FRE 803(5), and the Business Record Exception, FRE 803(6). These rules allow admission of a document if it was:

- Made at or near the time;
- Made by, or from information transmitted by, a person with knowledge;
- Kept in the course of regularly conducted business activity; and
- The regular practice of that business to make such a document.

As with the "recorded recollection" exception, contemporaneous creation of the document is essential and the document can be based on information provided by someone else. Unique to this rule is that the documents must be kept in the regular course of the agency activity and it must be the regular practice of the agency to create such logbooks and reports. The inspector's own habits, agency policy, and this and other training efforts would certainly help to meet these latter elements.

In brief summary, in order to ensure that the inspector's documentation, including notes, logbooks, and reports, is admissible, these documents should be accurate and based on someone's first-hand knowledge. They should be created contemporaneously with the inspection and as part of a routine practice. Deviation from these guidelines is not fatal, but such deviation should be noted and explained as to why it does not make a difference.

Chain of Custody

The purpose of chain of custody procedures is to be able to trace possession of a physical sample or other physical evidence from the time it was obtained until it is introduced into evidence in legal proceedings. Enforcement personnel must be able to demonstrate that none of the physical samples involved has been tampered with or contaminated during collection, transit, storage, or analysis. As discussed above, EPA must also show that the sample is authentic and relevant. While not essential from a legal standpoint, it is prudent to follow chain of custody procedures for other physical evidence, such as records and photographs.

To document chain of custody, an accurate written record must be maintained to trace the possessions of each piece of evidence from the moment of collection to its introduction into evidence.

Elements of Custody

A sample or other evidence is in "custody" if:

- It is in the actual possession, control, and presence of the inspector;
- It is in his or her view;
- It is not in the inspector's presence, but is in a place of storage where only the inspector has access; or
- It is not in the inspector's physical presence, but is in a place of storage and only the inspector and identified others have access.

If the integrity of the sample container sealing tags remain unbroken, it is not necessary to call every individual with "custody" of the sample to demonstrate that it was not tampered with or contaminated (unless, of course, certain methods of preservation, such as refrigeration, are necessary for analysis of the sample). The inspector's custody documents should reflect who was present during the various stages in the chain in order to call as witnesses these other individuals, if necessary.

Documenting Physical Samples for Evidence

In order to create adequate documentation for a chain of custody, the following documents are essential:

- Sample tag. The identifying tag should, at a minimum, include a sample number, the date, and the sampler's signature or initials.

- Field logbook entry. The inspector should note the time, location, and reasons for taking the sample, any identification number assigned; any deviations from standard chain of custody or sampling procedures; observations about the sample that would aid identification.

- Chain of custody record. The chain of custody record identifies each person who had custody of the sample from the time of the inspection until the enforcement proceeding. It includes bills of lading or other shipping receipts as appropriate.

- Receipt for samples. When as a program requirement or custom the facility owner/operator is given a receipt for samples, the inspector's copy of the receipt can aid in sample authentication.

(See also Chapter 13.)

Overview of Chain of Custody Procedures

While specific procedures may vary by Region and/or program, there are several basic procedures involved in initiating and maintaining chain of custody. They are summarized below; more detailed instructions are contained in chapters covering relevant inspection activities.

1. Establishing Custody. The inspector establishes sample (or other evidence) custody by sealing it with a seal that will readily show if it has been broken. The inspector writes his signature and the date on the sample seal in waterproof ink.

2. Preparing Sample (Evidence) Documentation. A major aspect of the chain of custody is the preparation and maintenance of written information describing the collection, shipment, and storage of the sample (evidence). Documentation includes the entries in the inspector's field logbook, the seal, the chain of custody record, field sample data forms, shipping records, and any other relevant materials. The inspector prepares the initial documentation in the field and must ensure that the relationship between each physical sample and the related documentation is clear, complete, and accurate. Field logbook entries should include sample identification numbers and information about the collection of each sample so that any specifics can be traced back to the particular sample.

3. Ensuring Custody during Transit. At a minimum, the chain of custody record should reflect each person in custody of the sample and where it is stored while in their custody. The logbook should be used to note any relevant additional information such as special care in storage (e.g., refrigeration) or any deviations from the custodian's usual practices in handling samples in transit.

At any point that anyone in the chain notices that the seal is broken or that there is an irregularity with the accompanying documentation, that person should specifically note the problem on the custody forms and immediately contact those prior custodians to remedy the problem or determine whether the sample needs to be retaken.

Upon arrival at the lab, the custodian should relinquish the samples to the lab technician and obtain their initials or name on the chain of custody form as receiving the samples, just as with anyone else in the chain. If the lab assigns different numbers to each sample, these new corresponding numbers should be noted as well.

4. Special Considerations for Shipping. When shipping samples to the laboratory, the following procedures will assure that the chain of custody is maintained:

   - Samples must be accompanied by the chain of custody record. The originator (e.g., the inspector) should keep a copy.

   - If sent by common carrier, obtain a bill of lading.

   - Include all receipts and shipping documents with the chain of custody documentation.

Applicable Rules of Evidence

The two rules already discussed -- Recorded Recollection, FRE 803(5), and the Business Record Exception, FRE 803(6) -- apply equally to the sample tags, chain of custody forms, and any other related documents, as they do to logbooks and reports. All of the previous discussion regarding what not to put in the inspector's notes and reports and the need to create the documents routinely and contemporaneously applies here with equal force. If the proper foundation is laid, the tags and chain forms will be able to be used by all those involved in the chain to testify about where and how the sample was taken, how it was sealed, the details of how it was stored and transported to the lab, and finally when and to whom it was delivered at the lab. The lab personnel will pick up the story from there. If the requirements of the evidentiary rules are met, the inspector will be able to testify about all of this detail using the documents without necessarily having any present recollection of the details and events described. Create the documents with this in mind.

One additional rule which is particularly applicable to sampling and chain of custody, is FRE 406, Habit: Routine Practice. This rule will allow an inspector to testify about the habits of an inspector or of the routine practice of an organization in order to prove that conduct of the inspector or organization at a particular time was in conformity with the habit or practice. This rule allows the evidence of habit to be admitted without having to have an eyewitness to an inspection testify as to how the inspection was conducted.

The elements of this rule more firmly establish the need for each inspector to perform functions and create documents routinely. This inspector training effort, other training and experience the inspector has had, and Agency policy help define what the "routine practice" of this Agency is regarding taking samples and establishing chains of custody. How each inspector digests this material and conducts him- or herself in the field defines the "habit" or routine practice of that inspector. Sampling and creating documents routinely and noting when there are deviations from the usual practice will ensure the admissibility of this type of evidence.

While testifying the inspector will be asked, for example, how he or she took the sample in question. Given the time lapse and the number of samples and number of inspections performed between the sampling in question and the testifying, the inspector probably will not have a present memory of taking the particular sample. The inspector will testify about his or her other training, experience, and habits in taking the water or wipe sample in question according to standard procedures, with details about where within the medium the sample was taken and why. In the absence of any notations to the contrary, the inspector can say, even though he or she cannot remember specifically, that standard procedures must have been followed because had there been deviations, there would have been notations to that effect. If there were such notations, then the inspector would testify about the different method as his/her memory has been refreshed by the note or as that note is admissible pursuant to FRE 803(5) or (6). Details about location, consistency, odor, etc., should be in the logbook or report and would also either refresh the recollection, or be admitted as a past recollection recorded or regular business record exception.

As stated before, deviations from the prescribed methods will not damage the case as long as they are still technically sound and justifiable. What can be fatal is not to do things routinely and contemporaneously and to not specifically note where there are any deviations.

Other Suggestions Regarding Chain of Custody

The suggestions which follow will help to assure that sampling and chain of custody activities go smoothly and result in admissible evidence.

- Only as many physical samples as are actually needed should be collected. Preferably, the quantity and location of samples to be taken should be established in advance as part of the inspection plan.

- If a team of inspectors is taking samples at a site, it is essential that an individual inspector is clearly tied to taking a particular sample. If possible, assignments for taking samples should be made in advance and each member should stay with that assignment, unless the field notes specifically indicate a change in assignment. There can be nothing worse than having several inspectors testify that they know that one of the inspection team must have taken the sample, but they cannot remember, and the records do not reflect, who that person is.

- If there are any errors in the forms, cross-outs should be made by a single line and then initialed and dated.

- The inspector should be sure to obtain the signature of the next person in the chain, on the appropriate line, before relinquishing custody. Only the person actually involved in that part of the chain should sign. As indicated earlier, each person in the chain should check the integrity of the seal and cross-check the accompanying documents.

- The number of people in a custody chain should be minimized.

Photographs and Other Demonstrative Evidence

Chain of custody procedures do not apply to photographs (unless the camera is activated and captures an image without anyone present to view the scene being photographed). All that the inspector must say to lay the appropriate foundation for the relevance and admissibility of a photograph is that it does "fairly and accurately" represent the scene on the data in question. This is true whether or not that inspector testifying actually held the camera.

In order to ensure that this is possible, the inspector should create entries in the field logbook, including an identifying number for each picture, what is seen, the date and time, the specific location on the premises, and other descriptive information. Use of databack cameras can help with this documentation. The photos should be processed quickly and immediately viewed in order to correlate the entries in the logbook with the individual photos. Failure to correlate the photos near in time to their exposure could affect the inspector's ability to lay the proper foundation later. The front of the photograph should not be defaced; all information should be written on the back or in attached documents.

Other demonstrative evidence, for example, maps and diagrams, is admissible with the same foundation as photographs: "Does this fairly and accurately reflect what you saw at the facility?" The efforts and imagination of both the lawyer and the inspector should combine to create such demonstrative evidence in order to help recreate in the courtroom what happened at the facility. The inspector should gather and document evidence in the field with the possible use of it as demonstrative evidence in mind.

Where the evidence in a case is particularly complex or tediously voluminous, the inspector may be called upon to create and testify about a chart, calculation, or summary of the evidence as provided for by FRE 1006, Summaries. The inspector would be called upon to testify about the foundation material he or she examined, how it was summarized, and then identify and explain the exhibit offered in evidence which is the summary. Again, the possibility that the inspector can present information in summary should be considered by the inspector in the field, as it may affect how certain evidence is gathered and documented.

Statements of Individuals as Evidence

The details of how to document statements is covered in Chapter 14; this section emphasizes the importance of statements as evidence against the regulated entity. Statements carry as much weight and are as persuasive (if not more so) as the samples and documents gathered at the facility.

The primary rule regarding statements, Admission by Party-Opponent, FRE 801(d)(2), is not an exception to hearsay, but actually defines the following as not hearsay:

> The statement is offered against a party and is:
>
> - The party's own statement;
> - The party has manifested an adoption or belief in its truth;
> - By a person authorized by the party concerning the subject;

- **By the party's agent concerning a matter within the scope of the agency or employment, made during the existence of the relationship; or**

- **By a co-conspirator of a party during the course and in furtherance of the conspiracy.**

In short, almost anything said by anyone associated with the facility being inspected is admissible evidence against that individual or the facility in an action by EPA against either. As the details of the rule indicate, it is important for the inspector to gather enough information from or about the person speaking in order to establish the person's relationship with the facility.

If the statement made by someone is so against that person's interest, either pecuniary or proprietary, that it tends to expose the speaker to civil or criminal liability, and is such that a reasonable person would not have made such a statement unless they believed it to be true, that statement is admissible against the individual or the facility without more needing to be shown. (FRE 804(b)(3), Statement Against Interest.)

Even if statements documented by the inspector are not directly admissible as evidence, they are important for locking the speaker into a position on any given subject. Should the declarant later testify at odds with what was said to the inspector, the declarant can be impeached (credibility challenged) by being questioned about what was said to the inspector and then have the inspector take the stand and testify regarding what was said. (FRE 613, Prior Statements of Witnesses.)

Finally, if oral statements are not used as evidence, they are extremely useful in developing leads and making cases. In sum, ask questions and get as much information as possible from individuals associated with the facility.

Documenting Records from the Inspected Facility

"Records" can include documents, reports, receipts, messages, notes, phone logs, printed manuals, monitoring and inspection logs, accounting ledgers, computer printouts, tape recordings, photographs, etc. All of these, under the rules of evidence, can be "statements" and therefore admissible under the rules just discussed. (FRE 801(d)(2), 804(b)(3), and 613.) If a proper foundation is laid, they may also be admissible under the business record exception (FRE 803(6)). Finally, the absence of records that should be present is what may be most important, and that fact is admissible under FRE 803(7).

The subject of records review is more thoroughly discussed in Chapter 12. Suffice it to say here that the inspector may take, copy, seize, take photographs of, or dictate the contents of the facility's records as authorized by the statute(s) under which the inspection is being conducted. If the inspector feels that particularly incriminating records are about to be destroyed, the inspector should seize them and the Agency will worry about their admissibility at a later date.

To authenticate such evidence, the inspector will need to be able to show, at a minimum, that the evidence in question was gathered during the particular inspection and demonstrate the records' authorship, location, and distribution.

If one recalls the discussion regarding statements (and therefore documents as statements), the ability of the inspector to gather evidence about who authored the document, where copies of it were located within the facility, and to whom it was distributed, cannot be overemphasized. Where questions of personal liability arise in a given case, particularly criminal, being able to show intent and knowledge through the facility's own documents could be essential.

Ideally, the inspector will also be able to demonstrate the integrity of the evidence, that is, that steps were taken to safeguard it between the time of the inspection and the enforcement proceeding.

- All evidence types. The logbook should always contain notes describing the exact source of the evidence (e.g., the second file cabinet left of the door, third drawer from the top) and the reason it was collected. Any identifying numbers or marks that the inspector placed on the materials should also be noted so they can be traced back. (See also Chapter 15A.)

- Copies of records. "Copies" of records include photocopies, close-up photographs of records or computer screens, or "hard copies" of computerized information. They should be dated and initialed by the inspector and assigned an identifying number that is noted in the field logbook. The facility may be given a receipt for the copies; this can also help authentication. Inspectors can also place documents in an envelope, seal the envelope with an official seal, and prepare a chain of custody form to begin chain of custody procedures. (See also Chapter 12A.)

CHAPTER 9

PRE-INSPECTION PLANNING AND PREPARATION

A good inspection begins with planning. Indeed, more time should generally be spent on planning the inspection than on conducting it. Planning is the thought process by which the inspector identifies all activities relating to the inspection from its objective (purpose) through execution (actual conduct) and follow-through. By knowing "why" the facility is being inspected, "what" should be looked for and how it will be found, and "where" attention should be focused, the inspector will make the most efficient use of field time and ensure that the appropriate information for subsequent compliance or enforcement purposes is collected.

By the time the inspector gets to the field, he or she should:

- Have a clear objective of what accomplishments are expected from the inspection so that any contingencies once in the field are readily adapted to.
- Know the applicable program regulations, compliance history, and physical site layout in order to clearly define the scope of activities the inspector will undertake at the facility.
- Know the Standard Operating Procedures (SOPs) for the type of inspection activities to be conducted, and have the right equipment and material for conducting the inspection and collecting, preserving, and documenting samples and other evidence.
- Know the safety plan for protecting all members of the inspection team from potential hazards or harmful exposures on site.

This chapter will describe the elements and procedures that go into pre-inspection planning, both those related to general field activity and the facilities inspection itself. It will concentrate on the "why" and "what" of pre-inspection planning; detailed discussion of the "how to's" of some of the key elements of planning (e.g., how to develop a quality assurance plan for samples) will be found in specific chapters on these subjects.

EPA inspections are generally carried out either by personnel assigned to Regional program divisions or to Environmental Services Divisions (ESDs); some inspections are also carried out by Headquarters personnel. The program division/ESD mix varies from Region to Region; as a result, procedures for preparing for inspections also vary. The material in this chapter has been developed to be broadly applicable. Inspectors should, however, familiarize themselves with the specific procedures relevant to their organizations.

Pre-inspection preparation is an essential element of conducting high-quality inspections. Proper planning and preparation are necessary to ensure that an inspection is conducted smoothly, efficiently, and professionally.

Thorough pre-inspection planning should accomplish the following purposes:

- Ensure that the inspection is properly focused.
- Provide a systematic framework for comparing a facility's practices against applicable EPA standards.
- Develop the most efficient and effective approach for inspection efforts given available resources (e.g., manpower, time, etc.).
- Identify the protocols for the inspection (i.e., technical, including quality assurance and safety).
- Determine the team task assignments in the field when more than one inspector will be on-site, and/or delineate and coordinate the role of the EPA inspector vis-a-vis the State inspection team during an oversight inspection.
- Ensure the availability and preparedness of equipment and documents necessary for on-site activities.

The remainder of this chapter details (1) responsibilities of the inspection team; (2) planning the inspection, including identifying the objectives and scope, reviewing records, advance notification of facilities, and the tasks associated with the development of a written Inspection Plan; and (3) the equipment and document preparation that should occur prior to going on site.

9A RESPONSIBILITIES OF THE INSPECTION TEAM

The primary role of an inspector is to gather information that can be used to determine compliance with permit conditions, applicable regulations, and other requirements. The inspector also has a role in enforcement case development and litigation support, and in permit development efforts. To fulfill these multiple roles, inspection personnel must know and abide by the legal requirements governing inspections, procedures for effective inspection and collection of evidence, accepted safety practices, and quality assurance standards.

This section first discusses the responsibilities of all inspectors, whether they are performing an inspection independently, serving as a member of an inspection team, or are leading an inspection team. This is followed by a discussion of the specific tasks that an inspection team leader or inspector conducting an inspection independently must perform.

Inspector Responsibilities

Legal Requirements

Since inspectors directly represent the Agency to members of a regulated community, it is essential that EPA personnel carefully abide by the legal and regulatory requirements determining program operations. Inspectors should be familiar with and observe all of the regulations associated with their respective inspection protocols. Further, inspectors must know and uphold the specific legal requirements that have been established for inspections, including:

- Presentation of proper credentials.
- Presentation of required notices and receipts.
- Proper handling of confidential business information.

Evidence Gathering

Inspectors must be familiar with general evidence gathering techniques. Since the government's case in a civil or criminal prosecution depends on the evidence collected during an inspection, it is imperative that each inspector keep detailed records in a field logbook for each inspection. These data will serve as an aid in preparing the Inspection Report, in determining the appropriate enforcement response, and in giving testimony in an enforcement case.

In particular, inspectors must know how to:

- Substantiate facts with items of evidence, including samples, photographs, document copies, statements from witnesses, and personal observations.
- Evaluate what evidence is necessary to establish compliance or, in the event of noncompliance, to support enforcement actions.
- Preserve the chain of custody.
- Collect and preserve evidence in a manner that will be incontestable in legal proceedings.
- Write clear, objective, and informative Inspection Reports.
- Testify in court and administrative hearings.

Safety

The inspection of environmentally regulated facilities always poses a certain degree of risk. To avoid unnecessary health and safety risks, the inspector and his or her first-line supervisor should be familiar with all safety guidance and practices. The inspector must have completed the EPA health and safety training requirements that are in place for all EPA personnel performing inspections. As a general rule, however, EPA should employ safety precautions that are used by the facility personnel at a minimum, but always follow EPA safety requirements if they are more stringent.

In addition, inspectors should:

- Use safety equipment in accordance with guidance received and labeling instructions.
- Maintain safety equipment in good condition and proper working order.
- Dress appropriately for the particular activity, and wear appropriate protective clothing.
- Use any safety equipment customary in the establishment being inspected (e.g., hard hat or safety glasses).

Quality Assurance

The inspector must understand the basic elements of the Agency's quality assurance policy and must assume primary responsibility for ensuring the quality of compliance inspection data. While other organizational units play an important role in quality assurance, it is the inspector who must ensure that all data introduced into an inspection file are complete, accurate, and representative of existing conditions. To help the inspector meet these responsibilities, Regional offices have established quality assurance plans that identify individual responsibilities and document detailed procedures.

The objective of a quality assurance plan is to establish standards that will guarantee that inspection data meet the requirements of all users. Many elements of quality assurance plans are incorporated directly into the basic inspection procedures and may not be specifically identified as quality assurance techniques.

The inspector must be aware that following established inspection procedures is critical to the inspection program. These procedures have been developed to reflect the following quality assurance elements. These elements will be discussed in more detail in Chapter 13, "Physical Sampling."

- Valid data collection.
- Use of approved standard methods.
- Control of service, equipment, and supplies.
- Quality analytical techniques.
- Standard data handling and reporting.

Independent Inspector/Team Leader Responsibilities

Depending on the scope and complexity of the inspection, a single inspector may be assigned to conduct the inspection independently or an inspection team involving two or more inspectors may conduct the inspection. In the latter case, one person should be assigned the responsibility of team leader.

While a team leader must perform additional coordinating responsibilities, the independent inspector and team leader have comparable responsibilities. Each serves as the primary contact for a specific assigned inspection and has overall responsibility for the successful conduct of the inspection, for analyzing and presenting the findings of the inspection in the inspection report, and for defending the findings.

The independent inspector or team leader must exercise leadership in four interrelated areas: coordination, communications, planning, and administrative matters. While not all of these responsibilities come into play prior to going on-site, they are included here for conceptual clarity and to provide an overview of the responsibilities of those who lead or independently conduct inspections.

Coordination

The independent inspector or team leader is responsible for assuring that the inspection is properly coordinated.

- Internal coordination of EPA inspection team. The extent of available manpower impacts the on-site activities that are realistically achievable in a given period of time and, therefore, is critical information for effectively shaping the inspection plan. Although many inspections are performed by a single inspector, if the inspection is a team effort, team leadership entails management decision-making with respect to task assignments. Such delegation of responsibility is crucial to ensuring that each individual inspector has a specific field responsibility and that, taken together, making task assignments addresses all of the inspection objectives. Once tasks have been assigned, the team leader should hold a briefing with all team members. At that time, general aspects of the inspection (e.g., test methods, chain of custody procedures, legal aspects, safety requirements, document control, etc.) can be presented, together with individual task assignments. This will provide each individual with an understanding of his or her role, as compared to the roles of other team members, and will contribute to an efficiently coordinated group effort.

- Other coordination. Depending on the purpose, scope, and complexity of the inspection, coordination may also be needed with the Regional Counsel, program personnel contractors, EPA or contractor laboratory personnel, State and local agency personnel, and/or the Department of Justice.

- External coordination for oversight inspections. For an oversight inspection, the independent inspector or team leader should coordinate with participating State personnel to establish what role each entity will play. At a minimum, such coordination should determine whether EPA inspector personnel will (a) serve as observers to a State inspection; (b) jointly participate in conducting inspection activities, and if so, which activities EPA personnel will undertake; or (c) conduct an inspection independent of State personnel.

Communication

In addition to the communication required for effective coordination of inspection participants, all other communications with Regional, State, and local authorities; facility officials; the public; and the news media (i.e., press, radio, television, etc.) are coordinated by the independent inspector or team leader. Requests for information relating to an enforcement investigation that are received from facility officials or third parties are also to be referred to the independent inspector or team leader or an assistant designated by the leader.

Planning

The independent inspector or team leader has overall responsibility for planning the inspection and for preparation of the written inspection plan. A detailed discussion of the inspection plan is presented in Chapter 9E; additional planning requirements for sampling inspections are discussed in Chapter 13. An overview of the relevant tasks follows:

- Determining the scope/objectives of the inspection and obtaining the necessary background information from the requestor (Regional program office, Headquarters, etc.) and other relevant technical, legal, safety, and/or administrative staff.

- Reviewing the applicable Agency records.

- Handling administrative and logistical matters.

- Detailing the inspection activities and field techniques.

- Preparing required sampling and QA/QC plans and safety plans.

The independent inspector or team leader is responsible for ensuring that draft inspection plans are provided for review in accordance with his or her organizational peer review policy and that information copies are distributed to all relevant offices (e.g., Regional program staff, laboratory, State regulatory agency).

Field Activities

The independent inspector or team leader has overall responsibility for determining that all field activities are performed expeditiously and that inspection objectives are met. While on-site, he or she is responsible for seeing that all activities described in the inspection plan, as well as any others required to fully perform a high-quality, safe inspection (such as use of appropriate safety equipment and of chain of custody and document control procedures for sampling, flow monitoring, analyses, recordkeeping, etc.) are carried out. Following completion of the field activities, he or she should account for all field documentation, such as field logbooks, sample tags, and chain of custody records. These should be verified as complete to ensure that, in the event that an inspection results in an enforcement action, the Agency's options against a violator will not be limited by a procedural weakness.

Report Writing

The independent inspector prepares the inspection report. The team leader, in cooperation with other personnel, will develop an outline and determine writing assignments for the Inspection Report. Quality, content, and the ability to substantiate and defend inspection findings are the critical requirements for report preparation, which is described in detail in Chapter 17A. Team leaders are responsible for ensuring that all reports from their team satisfy these objectives.

Administrative Matters

Administrative responsibilities include seeing that resource requirements are estimated and that necessary action documents, such as petty cash and procurement requests, and timekeeping records, as described below, are completed. (See also Chapter 10.)

- Petty cash and procurement requests. In order to avoid emergency requests, offices participating in an inspection should submit required purchase requisitions, allowing sufficient time for approval/action prior to fieldwork. The independent inspector or team leader is responsible for determining petty cash needs for the inspection and also for ensuring that proper receipts are retained as necessary for receiving credit for petty cash expenditures. In the case of a team inspection, the project leader designates those individuals who will receive petty cash. When appropriate, the independent inspector or team leader may also arrange to use purchase orders in the field.

- Travel. The independent inspector or team leader is responsible for ensuring that all necessary travel arrangements are made.

- Timekeeping. The team leader is expected to instruct personnel on the procedures for completion and submission of time records. The leader should also certify that Time Reports completed by field personnel correctly report regular time, overtime, and compensatory hours. Familiarity with the Fair Labor Standards Act and the EPA Administration Manual, as it pertains to overtime, holiday and hazardous duty pay, and compensatory hours, will prepare project leaders for this responsibility.

9B DEFINING INSPECTION SCOPE AND OBJECTIVES

An initial step in developing an effective plan for an inspection is to identify the purpose and objectives (including data quality objectives) of the effort. Inspectors need to know "why" they are performing an inspection in order to properly focus their on-site activities.

Cognizant EPA personnel should be able to inform the inspector as to the reason for inspection: routine, "for cause," case development support, or follow-up. Knowing the reason for inspection will permit the independent inspector or team leader to properly define its scope. For example, if it is a "for cause" inspection, the scope of the inspection should focus around the suspected violations and associated areas. It is important for inspectors to probe, if necessary, to clarify the scope and objectives. Inspections will be most productive if those who wish the inspection to be performed have fully communicated their needs and expectations in advance so that the inspector and the requester understand each other.

Specific inspection objectives can be determined through discussion with program managers and/or legal personnel. If the purpose of the inspection is to collect evidence for a case, consultation with case attorneys is essential.

Once the inspection objectives have been identified so that the inspector can state what the inspection is to accomplish and how the information is to be used, a general definition of the scope can be defined as a "working" understanding of the boundaries/limits of inspection activities. The statement of the scope can be further refined and included as part of the written Inspection Plan, but it is useful to have a "working" definition of the inspection scope for undertaking a focused review of Agency records/files.

Since each facility may be subject to multiple regulations, it is virtually impossible to assess its compliance with the total range of applicable requirements. Even the specific requirements of a single regulation may number in the hundreds. Therefore, it is necessary to make reasonable judgments about what can actually be accomplished on-site. A clear definition of scope pinpoints exactly what areas are to be included, and therefore enhances the success of the inspection process by providing the focus for other planning activities (e.g., Agency record review and preparation of relevant field equipment) and for on-site activities.

The first step in developing an effective definition of scope for an inspection is to identify the functional areas to be covered. Typically, this can be accomplished through a restatement of program objectives and annual priorities, together with the reason the facility was included in the inspection schedule (i.e., routine, "for cause," case development support, or follow-up). In making a determination of the functional areas to be included in the scope, it is important to clearly define the terms and to specifically delimit the boundaries or levels of inspection, as follows:

- Definition of terms. State the terms as explicitly as possible, so that they actually serve as "directional signals" or "operational descriptions" of what needs to be addressed. For example, if the scope will include solid and hazardous waste management, define exactly what that entails. Do you intend to include non-hazardous solid waste? Do you mean hazardous waste, or are you really focusing on hazardous materials and waste? Will the scope cover all statutes including hazardous waste requirements, or only those requirements subsumed under the Resource Conservation and Recovery Act (RCRA)?

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- Delimit the boundaries. When a facility is selected for an inspection (regardless of the reason), the degree of complexity of the inspection must be determined. Inspections can address different levels of detail, ranging from a "records review only" to a walk-through to a more detailed assessment, including observation and some sampling, or a very thorough effort, including observations, records review, interviews, and extensive sampling.

  The degree of complexity or level of inspection should reflect both the objectives of the inspection and the complexity of the facility and its compliance history, as well as time and manpower resources available for performing on-site activities. Determination of the boundaries of the inspection should also distinguish between on-site and off-site activities. For example, if hazardous waste management is an included functional area, how far will the inspection extend in determining the disposition of the facility's hazardous waste?

Once the scope has been defined, the next step is to identify the specific assessment topics that the inspection will include within each functional area. Frequently such topics can be characterized as the major regulatory requirements. For example:

- Within the area of hazardous waste management, assessment topics might include:

  - Manifest system.
  - Contingency plan and emergency procedures.
  - Waste characterization.

- Within the area of toxic substance management, assessment topics might include:

  - Recordkeeping system.
  - PCB control system.
  - Employee training.

- Within the area of wastewater management, assessment topics might include:

  - Control and treatment system.
  - Self-monitoring laboratory procedures.
  - Best Management Practices (BMP) plan.

- Within the area of air pollution management, assessment topics might include:

  - Operating conditions.
  - Source compliance testing.
  - Maintenance procedures.

At this stage, keep an open mind and list all of the potentially significant topics that may be applicable given the scope. Note that a specific item identified as a relevant topic early on may not be justified for inclusion throughout the inspection process. For example, as planning proceeds, methodological considerations might shift the focus, or once on-site, a finding in the field might dictate exclusion of an originally considered topic.

Identification of the assessment topics should identify 10 or 12 subjects upon which planning efforts can focus. The key to successful planning is to turn the assessment topics into questions and then to determine the most efficient and effective approaches for investigating those questions.

9C REVIEWING AGENCY RECORDS

A focused review of records in the Agency's files relating to a facility is essential to pre-inspection preparation and to the overall success of compliance inspection efforts. Such a review will save time and minimize inconvenience during an inspection by not requiring examination of information that has previously been made available. The review will also acquaint the inspector with the requirements that apply to the site, as well as important background information, such as facility operations and compliance history. Information relevant to the upcoming inspection can be abstracted from these files and may be documented in the written Inspection Plan. While this chapter will concentrate on written material available in the files, the review process should also include interviewing Agency/Regional personnel who are familiar with the facility to be inspected.

In general, review of Agency records will enable inspectors to:

- Become familiar with the facility type, size, and operations.
- Discover inadequacies, inconsistencies, or voids in the information, thus determining the need to request additional information from the facility.
- Minimize inconvenience to the facility personnel or unnecessary use of on-site time by not requesting information already provided to the Agency.
- Clarify technical and legal issues before entry.
- Develop an appropriate Inspection Plan that documents this information and applies it to shaping a methodological design for the most efficient use of inspection time and manpower resources.

Review Considerations: What to Review and Why

The following documents and types of information can be found in Agency/Regional files and may be useful in planning time and resource allocation, selecting appropriate field techniques, and preparing documents and equipment.

- General Facility Information. General facility information may include:
  - Maps showing facility location, geographic features, and relationship to surrounding areas.
  - Aerial photographs.
  - Names, titles, and phone numbers of responsible officials or facility representatives.
  - Any special entry requirements.
  - Past, present, and future process operations and production levels.

- Safety equipment requirements.
- Control and other relevant equipment.
- Descriptions of the facility's recordkeeping and filing systems.

This type of information is relevant for addressing several issues, for example:

- The facility location has a bearing on time scheduling and transportation arrangements/costs for the inspection.
- Geographical features may help determine physical sampling plans.
- Personnel and associated responsibilities can be used to determine who to interview with respect to certain issues; e.g., who is responsible for training employees or for self-monitoring data/reports?
- Entry requirements or prior history of refusal to allow entry need to be handled before going on-site; e.g., do you need to get a warrant?
- Other information shapes the inspection, such as what safety equipment EPA inspectors must use on-site or what kinds of equipment and recordkeeping systems are in use that might be inspected.

- Permits, Permit Applications, and Special Exemptions from Requirements. Permits provide information on the limitations, requirements, and restrictions applicable to discharges, emissions, and operations; compliance schedules; and monitoring, analytical, and reporting requirements. Applications provide technical information on facility size, layout, and location of pollutant sources; treatment and control practices; contingency plans and emergency procedures; and pollutant characterization types, amounts, and points/locations of discharge or emission. Special exemptions from requirements may have been granted by EPA (or the State); in granting the exemption, EPA (or the State) may have placed additional requirements on the facility. Be certain that the permit is the most current one for the facility.

  This information is critical to orienting the inspector to what to look for on-site, given the priorities established within the scope of the inspection; for identifying the major requirements against which the inspector should review the facility's operations; and for planning the most effective use of time and manpower resources.

- Prior Inspection Records and Reports on Enforcement Proceedings. The following types of information may be available:
  - Compliance history, including reports, follow-up studies, findings, and remedial action.
  - Past conditions of noncompliance.
  - Previous enforcement actions.

- Pending enforcement actions, compliance schedules, and/or variances.

Special note should be made of pending enforcement actions, compliance schedules, and any violations observed in previous inspections so the facility can be checked for current compliance in those areas where a history of noncompliance has been documented.

- Self-Monitoring, and Other Reports Prepared by the Facility. Inspectors should review these documents and note any discrepancies with inspection records and reports, permits, or other information. If information is not clearly presented or if any discrepancies exist, the inspector may decide to request additional information from the facility or may pay particular attention to such items during the upcoming inspection as a means of clarifying the information.

- Correspondence. Correspondence between the facility and EPA (or the State) may contain particularly important information for inspectors. Sometimes, an agency's response to correspondence from the facility can affect the requirements that are applicable to the facility, permit notwithstanding; the inspector needs to know about this before conducting an inspection.

Aside from the documents referred to above, which are specific to a given facility and are likely to be found in Regional files, other items of a more generalized nature may be of assistance to the inspector. Included in this category are:

- Laws and Regulations. The various underlying environmental statutes and related regulations establish standards, procedures, controls, and other requirements that may be applicable. Inspectors may use this information to familiarize themselves with the applicable rules. It is useful for inspectors to take copies of the laws and regulations to the inspection site to show and/or distribute to facility officials, if requested.

- Technical Reports, Documents, and References. This includes a range of books, journals, and other publications that provide generic information on industrial process operations, as well as specific data on advantages, disadvantages, and limitations of application associated with available treatment/control techniques. An inspector's knowledge of the process(es) and the associated control equipment at a facility significantly contributes to the success of an inspection, particularly in the area of diagnosis of control problems. It is therefore important to use technical resources to acquire knowledge of specific processes, operations, and maintenance of all types of control equipment, and inspection procedures for various types of control equipment and industrial processes.

- Commercial Data Systems. If there are no or limited Agency files on the facility to be inspected, the inspector may consult Dun & Bradstreet or other commercial data systems to learn such information as type of business and size.

Where to Access Information

A summary of compliance program data systems follows.

PROGRAM INFORMATION SYSTEMS

Media Program	Information System
Water/NPDES	Permit Compliance System (PCS): PCS tracks public and private parties and Federal facilities which have either an NPDES permit or have applied for one. It contains general information on all major and minor permits and tracks the compliance status for all major and selected minor sources. It can identify effluent, compliance schedule, and DMR reporting violations and generate a Limit Summary Report listing discharge limits by facility for each NPDES parameter.
Water/SDWA	Federal Underground Injection Control Reporting System (FURS): FURS is an inventory system used to identify well locations. It identifies wells by State, type of well, operating status, and whether they are on Federal or Indian land.
	Federal Report Data System (FRDS): FRDS contains inventory and compliance status information for all active Public Water Supply Systems (PWSS), including the type and disposition of violations and summaries of all enforcement actions, and highlights those which have not been resolved.
Hazardous Waste/CERCLA	Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS): CERCLIS is an inventory of all abandoned, inactive, or uncontrolled sites (including Federal facilities) known to EPA. It contains site identification data, financial expenditure data, and site task plans. CERCLIS also includes some enforcement data on milestones and PRP cleanup schedules.
	Case Management System (CMS): CMS files contain site enforcement information on administrative orders, civil actions, and settlements for CERCLA sites, and compliance histories. Data on Federal facilities are obtained from the States, Regions, and Headquarters and consolidated into a separate file.
Hazardous Waste/RCRA	Hazardous Waste Data Management System (HWDMS): HWDMS contains the inventory of RCRA-regulated facilities. It contains information on permitting, waste capacity, closure and post-closure requirements. It also contains information on compliance history, inspections, types of violations, and informal and formal enforcement actions.

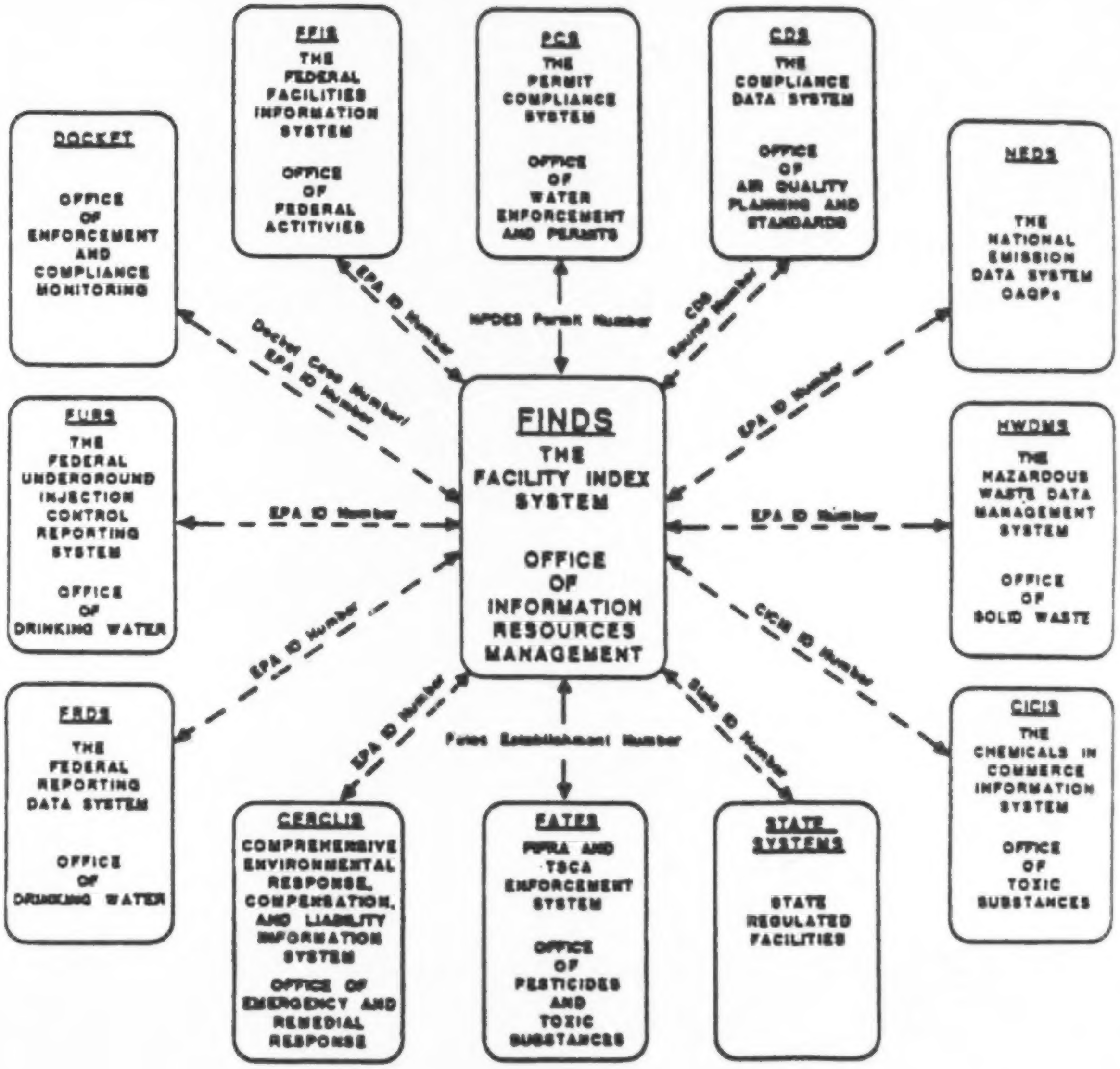
PROGRAM INFORMATION SYSTEMS (continued)

Media Program	Information System
Air/CAA	Compliance Data Systems (CDS): CDS contains information on the compliance status and enforcement activities at all major and many minor stationary sources subject to Federal and State air emissions regulations for New Source Performance Standards (NSPS), State Implementation Plans (SIPs), and National Emission Standards for Hazardous Air Pollutants (NESHAPs). CDS has the capability to produce reports summarizing the compliance status, inspections and enforcement actions for selected facilities as well as separate elements to track continuous emissions self-monitoring data.
	National Emission Data System (NEDS): NEDS contains emissions of criteria pollutants by major and minor stationary sources of air pollution.
Pesticides & Toxic Substances (FIFRA/TSCA)	FIFRA and TSCA Tracking System (FTTS): This new system expands and replaces all but one of the FATES subsystems (see below). FTTS contains compliance history and other related information records on inspections, import reviews, samples, case reviews, enforcement actions, and referrals. The system also can produce standard and ad hoc reports on compliance/ enforcement data.
Pesticides Subsystem	The remaining FATES subsystem provides Establishment Registration and Pesticide Product Reporting Information to monitor and enforce Section 7 of FIFRA.
Toxic Substances/ TSCA	Chemicals in Commerce Information System (CICIS): CICIS is a computerized database of public and confidential information on all available chemicals in the TSCA chemical inventory. CICIS identifies the chemical, case number, manufacturer, volume and confidentiality.
Title III 313/ Emergency Planning and Community Right-to-Know	Toxic Release Inventory System (TRIS): This new system provides multi-media information about releases of listed toxic chemicals above threshold amounts which are manufactured, imported, used, or processed by applicable manufacturing facilities. Data include the maximum quantity of the chemical on-site during the year and separate estimates of the total quantity of the chemical released during the year -- including both accidental spills and routine emissions -- to air, water, and land. Data may provide an overall "profile" of a facility which is useful for inspection planning.

PROGRAM INFORMATION SYSTEMS (continued)

Media Program	Information System
General Enforcement Data/All Programs	The Docket: This is a computer information system used by OECM to track civil enforcement litigation. The information contained in the system includes compliance history, case filing dates and other case tracking milestones, types of statute-specific violations identified for each referral, and the type of relief sought by the civil litigation.
State Program Information Systems	State programs' data systems generally contain inventories of minor facilities as well as compliance status information.

FINDS


FINDS
THE FACILITY INDEX SYSTEM
OFFICE OF INFORMATION RESOURCES MANAGEMENT
DOCKET
OFFICE OF ENFORCEMENT AND COMPLIANCE MONITORING
FFIS
THE FEDERAL FACILITIES INFORMATION SYSTEM
OFFICE OF FEDERAL ACTITIVIES
PCS
THE PERMIT COMPLIANCE SYSTEM
OFFICE OF WATER ENFORCEMENT AND PERMITS
CDS
THE COMPLIANCE DATA SYSTEM
OFFICE OF AIR QUALITY PLANNING AND STANDARDS
NEDS
THE NATIONAL EMISSION DATA SYSTEM
OAQPs
FURS
THE FEDERAL UNDERGROUND INJECTION CONTROL REPORTING SYSTEM
OFFICE OF DRINKING WATER
HWDMS
THE HAZARDOUS WASTE DATA MANAGEMENT SYSTEM
OFFICE OF SOLID WASTE
FRDS
THE FEDERAL REPORTING DATA SYSTEM
OFFICE OF DRINKING WATER
CERCLIS
COMPREHENSIVE ENVIRONMENTAL RESPONSE, COMPENSATION, AND LIABILITY INFORMATION SYSTEM
OFFICE OF EMERGENCY AND REMEDIAL RESPONSE
FATES
FIFRA AND TSCA ENFORCEMENT SYSTEM
OFFICE OF PESTICIDES AND TOXIC SUBSTANCES
STATE SYSTEMS
STATE REGULATED FACILITIES
CICIS
THE CHEMICALS IN COMMERCE INFORMATION SYSTEM
OFFICE OF TOXIC SUBSTANCES
Docket Case Number/
EPA ID Number
EPA ID Number
NPDES Permit Number
CDS Source Number
EPA ID Number
EPA ID Number
EPA ID Number
EPA ID Number
CICIS ID Number
EPA ID Number
Fates Establishment Number
State ID Number

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9D ADVANCE NOTIFICATION OF INSPECTION

Notification of Responsible State Agency

Policies and practices vary among programs regarding notifying State agencies of impending EPA inspections that will take place within their State. Some programs (e.g., the air program) require notification of State and/or local agencies at least five days in advance of the inspection. Since notification requirements vary, inspectors should consult State/EPA Memoranda of Agreement for the specific requirements that apply.

General plans for EPA oversight of state inspections are usually specified in annual grant agreements and work plans; actual scheduling of these inspections is done in consultation with the State.

Notification of the Facility

EPA is not required by law to provide advance notice of inspection. However, EPA program policies vary with respect to providing a facility with advance notification of an on-site inspection. Depending on the type of inspection and program policy, a facility may be notified in writing or by telephone that an inspection is imminent. The potential advantages and disadvantages associated with both unannounced and announced inspections are presented below.

Unannounced Inspection

The potential advantages of the unannounced inspection include:

- The opportunity to observe the source under its normal operating conditions, since the source does not have time to prepare for the inspection.

- Given unannounced inspections, the regulated community is never sure when, or if, their facility will be inspected. To the extent that the perceived risk of detection of violations serves as a deterrent to noncompliance, the spectre of unannounced inspections may induce a source to monitor its compliance status to minimize its exposure to detection of noncompliance and ensuing enforcement actions.

- Unannounced inspections may be interpreted by the regulated community as a stronger surveillance and enforcement posture than announced inspections since they take place without advance warning.

The potential negative aspects of performing unannounced inspections are:

- The source may not be operating or key plant personnel may not be available.

- There could be an adverse impact on EPA/State or EPA/source relations.

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However, it has been demonstrated by Regional offices which already use unannounced inspections that, in the majority of cases, these drawbacks can be overcome.

When advance notification is not being given, an alternative to arriving at the source totally unannounced is to contact the facility shortly before the scheduled inspection time. This is left to the discretion of the Regional office and/or the inspector, and must be done so as not to alter the representativeness of the source operation. The amount of advance notice given should then be noted in the Inspection Report.

Announced Inspections

Announced inspections are performed by EPA and its authorized representatives when some specific purpose is served by providing such notice. Situations where announced inspections may be appropriate are:

- When specific information is sought that must be prepared by the source, or where the source must make significant accommodations for the inspector to gather the information.
- To ensure the availability of specified facility personnel when their assistance is necessary for the successful performance of the inspections, i.e., the information they provide cannot be obtained from other on-duty plant personnel or by a follow-up information request.
- When inspecting government facilities or sources operating under government contract where entry is restricted due to classified operations.
- When inspecting unmanned or extremely remote sources.

In general, notification is not recommended when a facility is suspected of improper recordkeeping or illegal discharges and/or emissions; the concern that advance notification might contribute to destruction of records or to actions that alter physical conditions prior to inspection justifies an unannounced inspection. In such circumstances, and depending upon the requirements of the underlying statute, written or verbal notification can be presented at the time of the unannounced inspection.

Notification Letters

A "114 Letter" is sometimes used for notification if there is a need to request facility information prior to an inspection conducted under the Clean Air Act (CAA). The facility representatives notified should have authority to release data and samples and to arrange for access to specific processes. In addition, when notifying a facility of an inspection, information should be requested in regard to on-site safety regulations. This will avoid problems concerning safety equipment at the time of the inspection.

In the NPDES program, the permittee is sometimes notified by a "308 Letter" that the facility is scheduled for an inspection. The 308 Letter advises the permittee that an inspection is imminent, and usually requests information regarding on-site safety regulations to avoid problems concerning safety equipment at the time of inspection. The 308 Letter may also specify the exact date of the inspection if coordination with the permittee is required. It is also used to inform the permittee of the right to assert a claim of confidentiality.

9E PREPARATION OF THE INSPECTION PLAN

The development of a sound inspection plan prior to going on-site is as important to the total compliance monitoring and enforcement process as the generation of a high-quality, well-documented inspection report. While plans should be flexible enough to adapt to unanticipated situations encountered at the site, the inspection plan should be designed as an organized approach to guide the conduct of the inspection. Its basic purpose is to provide the inspector or inspection team with a step-by-step guide to collecting relevant evidence about a facility's procedures and practices that have been included in the scope of the inspection.

The inspection plan serves several purposes:

- States the reason for inspection: a brief history of why the inspection is taking place and the inspection objectives (i.e., what is to be accomplished).
- Records the scope of the inspection: identifies the functional areas, assessment topics, and level of inspection.
- Specifies inspection procedures and associated rationales: which field and analytic techniques will be used to collect what information; what recordkeeping systems will be reviewed; which personnel will be interviewed; which samples will be collected; and for each step, why.
- Permits clear definition of team task assignments and time scheduling, based upon overall inspection objectives and methodology.
- Details resource requirements (costs) based upon planned activities and time allocations.
- Provides clear guidance for what kinds of evidence should be collected and documented in field logbooks.
- Includes a Quality Assurance Project Plan, where required.
- Identifies a safety contingency plan, where required.

The investment of time required to produce a quality inspection plan is worth the effort because it constitutes a "walk-through" that should save time and resources during the actual inspection. The inspector must assess precisely what questions are appropriate to address in a short planning document. However, general guidelines for developing the inspection plan are included here. Most programs have developed standard operating procedures and/or inspection checklists that can be incorporated as part of the inspection plan. It is still important, however, to be clear as to which elements will be the focus of the inspection.

The determination of the objectives and scope of the inspection (including the identification of key assessment topics/questions and level of inspection) essentially defines "what" the inspection will focus on; the next step is to define "how" the inspection will be conducted. To plan "how" the inspection should proceed, consider the following issues, as adapted from the "Environmental

Auditing Skills and Techniques Workbook" prepared by Arthur D. Little, Inc., for the Edison Electric Institute:

- "Some" versus "all". To ensure a consistent inspection approach that is supportive of program goals, it is particularly important to make a preliminary determination of whether the inspector should examine all or merely a sample of relevant documents, activities, or equipment. For example, if the inspector is expected to determine whether the facility has properly identified and characterized all water discharge sources, determine how he or she can reach that conclusion. Would it be acceptable, for instance, to have the inspector physically observe only a portion of the facility boundary? If the inspector is expected to "walk the property line," it may be desirable for the Inspection Plan to so state the instruction.

- Type of field technique. Where appropriate, provide some guidance to the inspector regarding the type and level of techniques (e.g., interview, recordkeeping system review, observation, and/or testing) to use for each topic. For example, consider the differences between these two steps: "Determine the adequacy of the RCRA training program," and an alternate step, "Through discussions with facility personnel and review of training records, determine whether the facility has a written RCRA training program with job titles, job descriptions, and records of employees trained. Select a sample of employees from personnel records and verify that they have received training during the past year."

- Define the minimum approach. In annotating the inspection plan to provide guidance on how each topic is to be addressed, do not try to identify the range of potentially appropriate data-gathering techniques. Instead, define the minimum acceptable approach necessary to conduct a high-quality inspection.

The Elements of a Written Inspection Plan

While the length and complexity of the plan will vary, the inspection plan should include at a minimum:

- Objectives/background history of the inspection.

- Scope and assessment topics.

- Inspection activities and field techniques.

- Sampling plan (Quality Assurance Project Plan).

- Safety plan.

- Administrative requirements.

Inspection protocols and/or checklists have been developed for many types of EPA inspections, which can serve as a principal part of the inspection plan. Even with such guidance, however, it is useful to do advance planning about how the protocols will be applied at the particular inspection site. Components of an inspection plan and the considerations involved are discussed below.

- Objectives/Background History of the Inspection. This introductory section should entail a brief history and statement of the reason for this particular inspection (e.g., routine, "for cause," case development, or follow-up). It should also stipulate what the investigation is to accomplish and how the information obtained will be used, as noted earlier.

- Scope and Assessment Topics. The inspection plan should explicitly state the scope and assessment topics as defined in Chapter 9B. Each of the assessment topics should be framed as questions to establish the actual tasks that will be performed during the inspection. For example, given the assessment topics cited in Chapter 9B, relevant questions and associated tasks might include:

  - Manifest System (Hazardous Waste):

    - Sample Questions: What manifest systems should exist? What information constitutes a complete manifest system? How long must copies of each manifest be retained?

    - Sample Tasks: Check the generator and transporter manifests for authorized identification numbers, proper wastes information, emergency information, and certification that materials are packaged and labeled for transport. Check that manifests are being retained for up to three years, as required.

  - Contingency Plan and Emergency Procedures (Hazardous Waste):

    - Sample Questions: What procedures are in place to reduce the possibility of emergencies? What plans have been made to deal with emergencies? What are the training and emergency equipment requirements?

    - Sample Tasks: Check the facility for adequate operator training and required emergency equipment for ignitable, reactive, and incompatible wastes. Assess the testing and maintenance of emergency equipment. Check contingency plans, including arrangements made beforehand with local authorities.

  - Control and Treatment Systems (Wastewater):

    - Sample Questions: What are the system requirements for removal of conventional, nonconventional, and priority pollutant substances? Is the treatment plant prepared for a variety of circumstances (e.g., low temperature, excess stormflows, peak process flows)?

    - Sample Tasks: Check the operating condition of the treatment units. Assess the impact of stormflows, inflow, and infiltration on system operation.

EXHIBIT 9-1

"GENERIC" ELEMENTS OF AN INSPECTION PLAN

- OBJECTIVES
  - What is the purpose of the inspection?
  - What is to be accomplished?
- TASKS
  - What records, files, permits, regulations will be checked?
  - What coordination with laboratories, other programs, attorneys, State or local government is required?
  - What information must be collected?
- PROCEDURES
  - What specific facility processes will be inspected?
  - What procedures will be used?
  - Will the inspection require special procedures?
  - Has a QA/QC plan been developed and understood?
  - What equipment will be required?
  - What are responsibilities of each member of the team?
- RESOURCES
  - What personnel will be required?
  - Has a safety plan been developed and understood?
- SCHEDULE
  - What will be the time requirements and order of inspection activities?
  - What will be the milestones? What must get done vs. what is optional to get done?

9F PRE-INSPECTION CHECKLIST

No single list of documents and equipment will be appropriate for each inspection. The lists and descriptions below are intended only as a guide to aid inspectors in planning for supplies.

Specific needs will be determined by the requirements of the inspection, the availability of certain equipment, conditions at the facility, Regional policies, conditions, and whether or not advance notice of inspection will be given. Therefore, it is important to obtain and review all pertinent file information about the facility and its compliance status to help develop the "checklist."

Inspection Equipment

The kinds of equipment that an inspector carries should be specifically related to the kind of inspection to be undertaken and the inspection plan that was prepared. The inspector is expected to use sound judgment and rely on training and past experience in deciding what equipment is necessary for a particular inspection. The equipment should be well-maintained and checked to see that it is in good condition prior to each inspection.

Inspection Documents and Forms

Documents and forms necessary for the inspection should be prepared in advance of the inspection, whenever possible. Listed below are documents/forms that may be needed. The nature of document preparation may vary with different programs; it is the inspector's responsibility to become familiar with the requisite documents/forms relevant to performance of each inspection.

- Notice of Inspection. Under some EPA laws, written notices must be presented upon the inspector's arrival at the facility. Portions of this form can be filled out in advance, but the time of inspection and name(s) of facility official(s) are entered at the time of inspection.

- Compliance Report Form (where appropriate). Some programs have developed forms or checklists to guide inspectors in gathering relevant information.

- Inspection Confidentiality Notice. This form is used to inform facility officials of their right to claim inspection data as confidential business information [inspections under the Toxic Substances Control Act (TSCA)].

- Sampling Documents. The following forms relate to physical samples and are used to record and control sample identification and custody. These forms include:

    - Custody Seal(s).

    - Chain of Custody Record.

- Receipt for Samples and Documents. All samples and documents taken during an inspection are listed on this form.

- Declaration of Confidential Business Information. This form is used to list all documents and samples taken during an inspection that have been claimed as confidential business information (TSCA only).

- Copies of the Appropriate Act and of Specific Regulations. Some facility officials may not have copies of the acts or of applicable rules and regulations. Inspectors should have these available for distribution.

- Agency Outreach Materials. Inspectors should provide current, relevant educational information to facility officials.

Administrative Documents and Forms

Travel Authorizations, telephone numbers of travel and procurement personnel who may need to be contacted, and any forms that may be needed to secure services in the field should be carried along to the inspection. Such documents might include Government Transportation Requests (GTRs) to charter boats or airplanes and Government Bills of Lading for shipping samples. (See Chapter 10.)

Safety Equipment

Under Agency policy, no EPA employee may do field work without first completing an approved on-site safety training program. Personnel who must use respiratory protection equipment must also complete specialized training, which includes protective equipment selection criteria. Program-specific safety training has been developed for field personnel facing particular risks.

EPA policy also requires that a safety plan must be developed for all field activities. Safety plans for the inspection should specify the expected hazards and types of exposures to be encountered, needed safety equipment, and an emergency evacuation plan. The safety items listed in the checklist below are intended as a general reminder only, and do not substitute for a tailored list of needed equipment that should be prepared for each inspection.

"Ready to Go" Checklist

Since each inspection is unique, no list of materials, equipment, and forms can be appropriate for all inspections. The checklist below is intended to provide a quick reminder of the types of items that might be needed on a given inspection.

General Equipment

- Camera
- Film and flash equipment
- Pocket calculator
- Tape measure
- Clipboard
- Waterproof pens, pencils, and markers
- Locking briefcase
- "Confidential Business Information" stamp
- Stamp pad
- Pre-addressed envelopes (e.g., to Document Control Officer)
- Plastic covers
- Plain envelopes
- Polyethylene bags
- Disposable towels or rags
- Portable typewriter
- Portable copying machine
- Flashlight and batteries
- Pocket knife
- Merck index

Sampling Equipment

Sampling equipment will vary by program and media; inspectors should follow guidance provided in program-specific materials. Examples of typical sampling equipment follow. (See also Chapter 15B on Planning for Sampling Inspections.)

- Standard Operating Procedures for program/media involved
    - Crescent wrench, bung opener
    - Siphoning equipment
    - Weighted bottle sampler
    - Bottom sediment sampler
    - Liquid waste samplers (e.g., glass samplers)
    - Auger, trowel, or core sampler
    - Scoop sampler
    - Sample bottles/containers (certified clean bottles with teflon-lined lids)
    - Labeling tags, tape
    - Storage and shipping containers with lids
    - Ice chest
    - Container for contaminated material
    - Hazard labels for shipping samples
    - Ambient air monitor
    - Field document records
    - DOT special 12B cartons
    - Vermiculite or equivalent packing
    - Thermometer
    - Colorimetric gas detection tubes
    - pH equipment
    - Explosimeter

Documents/Forms

- Entry Warrant, if deemed necessary
- Notice of Inspection
- Inspection Confidentiality Notice (TSCA, RCRA)
- Declaration of Confidential Business Information (TSCA)
- Receipt for Samples and Documents
- Chain of Custody Record Forms
- Official Seals
- Hazardous sample shipping labels
- Government Transportation Requests (GTR)
- Bill of Lading
- Travel Authorization
- Airbills

Safety Equipment

- Safety glasses or goggles
- Face shield
- Ear plugs
- Rubber-soled, metal-toed, non-skid shoes
- Liquid-proof gloves (disposable, if possible)
- Coveralls, long-sleeved
- Long rubber apron
- Hard hat
- Plastic shoe covers, disposable
- Respirators and cartridges
- Self-contained breathing apparatus

Emergency Equipment

- Substance-specific first aid information
- Emergency telephone numbers
- First-aid kit with eyewash
- Fire extinguisher
- Soap, waterless hand cleaner, and towels
- Supply of clean water for washing

CHAPTER 10

ADMINISTRATIVE CONSIDERATIONS FOR INSPECTORS

Because their work takes place in the field and sometimes involves unforeseen needs, inspectors must deal with a wide range of administrative procedures on such matters as procurement, shipping, and travel. In addition, inspectors may be entitled to special pay for overtime or hazardous duty.

The purpose of this chapter is to familiarize the inspector with the various administrative requirements and entitlements needed for factoring cost estimates into inspection planning. Each inspector should become familiar with the specific administrative procedures used in his or her organization to assure that procurement requests, travel authorizations, and vouchers are processed smoothly. It is important to know which administrative documents need to be prepared, whose signature(s) is needed on the various forms, and what the request originator's (e.g., the inspector's) responsibility is for obtaining them. Failure to follow proper procedures can result in failure to be reimbursed for expenses.

This chapter contains a general discussion of common administrative issues that inspectors face and should not be considered a substitute for the detailed manuals covering administrative topics that are available from EPA's financial management and personnel division. The person who handles administrative matters (often called the administrative assistant) in the inspector's unit should also have these procedural manuals. Specific Regional procedures will be covered in the classroom training course.

The importance of pre-inspection planning cannot be emphasized too strongly. It is far easier to comply with administrative procedures if needs for tickets, equipment, sample shipping, boat rentals, etc., are anticipated in advance. With advance planning, any necessary forms can be obtained, filled out, and appropriate authorizing signatures secured. Whenever there is a field procurement or change in travel plans, there is a risk that reimbursement could be delayed or ultimately denied.

10A TRAVEL

Following is a summary of key travel considerations for inspections. For detailed procedures, consult with the administrative officer and the Resources Management Directives System (RMDS), Division 2550-B, "Travel Manual," and appendix entitled "Federal Travel Regulations with EPA Annotations."

Travel Authorization

The first step in administrative planning for the inspection is obtaining a Travel Authorization for each member of the inspection team. Travel orders should be prepared as soon as possible, and the necessary signatures obtained. A copy should be kept in the inspector's possession at all times while on the road. The authorization must anticipate trip needs such as common carrier transportation, per diem, car rental, and Government Transportation Requests (GTR) for special transport needs. An estimate of total costs for the trip is included.

Diners Club Card

Each EPA employee who is expected to travel as part of his or her job is issued an official Diners Club card for use in paying for travel expenses such as airline tickets, hotels, meals, and rental cars. The Diners Club card can also be used to pay for other incurred costs, such as for sample shipping, if the employee has the procurement authority.

Travel Advance

If a Diners Club card has been issued to the employee, he or she may request a travel advance of up to $15 a day plus cash for miscellaneous expenses. If the hotel where the employee will be staying does not accept the Diners Club card, an advance of up to the daily limit at that destination may be obtained. If there are unusual circumstances about the trip, include a statement under "Remarks" on the travel authorization.

Request the smallest advance necessary to accomplish the mission.

Requests for travel advances should be submitted sufficiently in advance of departure to allow the financial office to process the check through Treasury (about 10 days).

Policy varies by Region, but in an emergency, a limited amount of funds (e.g., up to $250) can be obtained quickly from Imprest Funds.

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Airline Tickets

The U.S. Government has contract arrangements with several air carriers; contract flights must be used by EPA employees. Contract flights are listed in the Federal Travel Directory. The Directory also contains a list of the exceptions that are acceptable for not using a contract carrier. The employee should use a Travel Management Center (TMC) to procure airline tickets.

Teleticketing

Identify the contract carrier serving the destination. Choose flights, call the airline, and arrange for a teleticket according to the appropriate office procedures. When tickets arrive (where they are sent varies by Region) check them immediately to see that the flight numbers are correct as well as the time and date of departure. Make sure that the price is correct; once the ticket is used the Agency is committed to the fare. Save the ticket coupon and submit it with the travel voucher.

Travel Management Center (TMC)

Many EPA Regions and Headquarters use an authorized Travel Management Center (TMC) for making travel arrangements. These centers are authorized to choose contract airline flights and will do so unless the traveler specifies why those flights will not be suitable for the mission.

Airline Ticket Office

Use the Diners Club card to purchase tickets directly from the airline or from the TMC; this is particularly useful when itinerary changes in mid-trip. The card entitles the employee to contract fares, and the employee should request it. Always save the ticket coupon and submit it with the travel voucher. A GTR (see below) may also be used to purchase tickets from an airline ticket office.

Refunds

Unused tickets should be guarded well and returned for a refund. The method of refund depends on how the tickets were purchased, involving either a refund or credit to the Agency's account or, if a Diners Club card was used, a credit to the employee's account.

Lost or Unused Tickets

If travel plans change during the trip, use the official Diners Club card to buy a new ticket from the airline. If the original ticket can be re-written, of course, this would be preferred. If there is an additional charge, use the Diners Club card. Save all ticket coupons and attach to the travel voucher. Note on the voucher that unused tickets (if purchased with a GTR) are attached and provide sufficient details about the trip to explain why there were unused tickets.

If a ticket is lost, the employee pays for it. If lost tickets originated through teleticketing, the financial office will apply for a refund and repay the employee when the refund is received from the airline. If the ticket was charged to Diners Club, the employee must apply for a refund.

Using Cash for Travel Services

The term "cash" includes not only greenbacks and coins, but also personal credit cards. (Diners Club cards are "official" credit cards.)

When Cash Can Be Used

Cash is used to pay for:

- Travel services costing $10 or less;
- Excess baggage costs of $15 or less; and
- Travel services of up to $100 when advantageous to the government.

In case of an emergency, cash may be used to pay for travel services costing more than $100. Written approval should be obtained from an authorizing official prior to departure. Only the Office of the Comptroller can authorize travelers to exceed the $100 limit.

If pre-departure approval is not possible, obtain written authorization from the Office of the Comptroller immediately upon return.

When Cash Should Not Be Used

Do not use cash to purchase tickets or travel services costing more than $100 in a non-emergency situation. Reimbursement requires the approval of the Office of the Comptroller and an exemption from GSA. The traveler's convenience is not a cause for approval. This means it will take a long time to be reimbursed.

The $100 cash limitation does not apply if either the government Diners Club card or a GTR is used.

Hotel Reservations

Travel regulations establish procedures for reimbursing government travelers. Travelers are reimbursed for the cost of the hotel, plus a per diem rate for food based on destination. There are several classes of per diem, ranging from about $26 up to about $36 per day for meals and incidentals. The traveler is responsible for selecting a hotel which provides a government rate. The travel rules spell out limitations on cost of hotels depending on the location. The traveler should try to select one that is considered acceptable within the "prudent traveler" rule.

Travelers should select hotels exercising the same care in incurring travel expenses for the government as if traveling on personal business. Ideally, the hotel should be close to the work site, thus reducing overall travel expense.

When making reservations, provide the reservation clerk with the Diners Club card number to reserve the room. If late arrival is anticipated -- after 6:00 p.m. -- tell the clerk. The room will be held all night if necessary, and the traveler is responsible for the cost whether he or she arrives or not. If travel plans change, the reservation can be cancelled if a call is placed before 6:00 p.m.

Some communities have an ordinance exempting Federal employees from paying the local hotel tax. Inquire when making reservations, and ask which documents are needed. It may be necessary to provide a copy of your travel orders or a letter on EPA letterhead which indicates your name and the fact that you are a government traveler on official business. There are no guarantees that you will be given the exemption; some clerks are unaware of the ordinance. If the exemption is not allowed for some reason, it will be reimbursed.

Use of Government Owned Vehicles (GOV)

Using appropriate procedures, request a Government Owned Vehicle (GOV) sufficiently in advance to assure that a car is available.

Before departure, make sure that a government credit card is in the vehicle to pay for fuel. Some service stations do not accept the government credit card; try to find one that does. If cash is paid, be sure to get a signed receipt.

If an accident or breakdown occurs while in the inspector's possession, contact GSA at once before having the car towed or repaired. Otherwise, the inspector will be responsible for the cost.

The GOVs assigned to Regional offices are generally for short-term use -- one or two days. If a vehicle is needed for a longer period, follow procedures for obtaining a leased vehicle well in advance of the need.

Use of Rental Cars

Rental cars must be authorized and justified on the travel authorization. Reservations should be made in advance of departure, always requesting the government rate. Most major rental agencies have agreements with GSA to provide suitable cars at considerable savings; EPA can only reimburse from the government rate schedule.

Payment for the rental car may be made by Diners Club card or in cash. The rental receipt, marked "paid," must be submitted with the travel voucher. A signed statement on the rental receipt stating that the car was used for official business must be attached to the travel voucher. Indicate whether any mileage was used for personal transportation (not official business); only official business usage will be reimbursed. Insurance purchased for rental cars will not be reimbursed. Refer to the Federal Travel Directory for more particulars about using rental car agencies.

Use of Government Transportation Request (GTR)

The use of Government Transportation Requests (GTRs) has been reduced since EPA employees have been issued Diners Club cards.

GTRs can be used to purchase airline tickets directly from the airlines; to charter helicopters, planes, buses, and boats; and for train fare. GTR may not be used for rental cars.

GTRs are accountable forms and must be safeguarded. If one should be lost, it must be reported immediately to the office that issued it (the office responsible for finance).

If a GTR will be needed for a trip, make sure there is a statement of justification on the Travel Authorization. Complete accounting information must be transcribed legibly on the GTR, including account number, document control number, object class, Travel Authorization number, your name and Social Security number, and the travel purpose code. The needed numbers can be found on the Travel Authorization.

If chartering a vehicle, include a statement on the back which specifies what is being agreed to (see sample language under "Use of Charter Planes" below).

If a GTR is not used, it should be returned to the office that issued it.

The charter company will retain the blue original of the GTR and will use it to bill EPA for the cost. The buff copy goes to the issuing office for recording the obligation. Be sure that the amount is legible on the buff copy.

Use of Charter Planes, Helicopters, and Boats

Helicopters (and Airplanes)

Helicopter services are usually procured annually through large-dollar Interagency Agreements which spell out the hourly charges for various locations and conditions. Since helicopters can cost hundreds of dollars each day to lease and fuel can be extra, inspectors are responsible for prudent use of these services. The inspector is responsible for recording and reporting usage to the person in the Region who tracks and monitors usage. Know the terms and conditions of the contract before departure. Ask the pilot for each flight's log. Report usage by date, location, names of passengers, hours flown, fuel purchased, and description of activities. (The same information should be reported when charter planes or boats are used.)

Chartering by Use of a Government Transportation Request (GTR)

If there is no Interagency Agreement for helicopter or private plane service (such an Interagency Agreement is currently in place Agency-wide), make arrangements in advance with a charter company and take one or more Government Transportation Requests (GTRs) with you. The Travel Authorization must specify that GTR will be used. Know and follow procedures for securing and processing GTRs (see discussion above).

To charter a helicopter or plane, prepare a GTR with the charter company. On the face of the GTR, provide detailed accounting data, name of carrier, and amount. The accounting data will be specified in your travel orders.

On the back of the GTR, write a statement which specifies what is being agreed to. The statement could read as follows, but will differ according to circumstances:

> "Charter to transport ______ persons with equipment and samples, from (point A) to (point B) and return. In-flight cost $_____/hr.; standby cost $_____/hr.; fuel $____/gal.; other cost $________. Will cover dates _______ through _______. Type of equipment _________. Copy of flight log will be provided."

Agreed: ____________________ ____________________ ______

(EPA employee) (Charter Company Rep.) (Date)

Leasing a Boat

With as much lead time as possible before departure, prepare a Procurement Request (PR) for procuring a boat which will suit the needs of the mission. Indicate the size, capacity, length of time needed, and suggested charter companies which can supply an appropriate boat. Obtain all required signatures.

A GTR can be used for chartering a boat, just as it can for an airplane. If the need for a boat is learned after arrival in the field, contact a charter boat company and ask if they will accept a GTR. If not, call the office to obtain necessary documents and have arrangements made. Be sure to get a receipt before leaving the dock. Keep records of boat usage, condition, and any other services which may affect the cost. Report this data to the administrative assistant (or other designated person).

Change in Travel Plans

Frequently, an inspector may be asked to change his or her itinerary and proceed to a different location from that specified in the travel orders. Should that occur, the inspector may need to handle all the logistics of changing tickets, making (and cancelling) hotel reservations, and perhaps renting a car at the new destination.

Airline tickets should be re-written at the ticket counter. Always request the government contract fare. If there is a price differential, pay by Diners Club card. If there are unused tickets, return them for a refund. (See airline procedures.)

When there are changes in a trip, be sure that an amended Travel Authorization is sent to the appropriate finance office for recording the obligation. File a reimbursement voucher within 10 days of returning home and obtain post approval from the supervisor for additional days in the field. Keep records and receipts of all expenditures.

Filing Reimbursement Vouchers

Prepare the reimbursement voucher promptly, and file with the finance office within 10 days of returning to the office.

- Account for all expenses, indicating time of departure and return.
- Attach all receipts. A receipt is required for:
  - Any expense exceeding $25
  - Excess baggage checking
  - Lodging (an original is required)
  - Car rentals
  - Registration fee
  - Common carrier costs
  - Telephone calls
  - Rental of equipment
- List costs for which receipts are not required.

- Reimbursable items include: hotels, limos, taxis, buses, rental cars, airline tickets purchased through Diners Club, official phone calls, meals, mileage to and from the airport, and parking.
- Considered part of the per diem but reimbursable within the daily limit are: laundry, tips for meals, and baggage handling.
- Repay any excess advance by attaching a check to the voucher, made payable to the Environmental Protection Agency.
- Sign the voucher.
- Obtain approval by an authorizing official such as the Branch Chief or Division Director.

Post approval is needed for a rental car not approved on the Travel Authorization or if the trip was extended beyond the approved ending date.

If the trip was for site-specific Superfund travel, attach a copy of the timesheet to the voucher to account for those hours charged to Superfund.

Depending on the amount and Regional policies, employees will receive reimbursement checks at work or in the mail directly from the U.S. Treasury.

Outstanding travel advance balances must be paid within 10 days of completion of travel; they are submitted with the travel voucher. If the owed amount is overdue by more than 30 days (policies may vary by Region), it can be deducted from the employee's salary plus interest, penalty, and handling charges. If payroll deduction is required, the traveler will be suspended from entitlement to receive travel advances for one year.

U.S. ENVIRONMENTAL PROTECTION AGENCY

TRAVEL AUTHORIZATION

(Please read instructions on reverse)

1. NO. T 221197

2. SOCIAL SECURITY NO.

3. TRAVEL AUTHORIZATION CODE
☐ N = NEW
☐ A = AMEND
☐ C = CANCEL

4. TRAVEL AUTHORIZATION TYPE
☐ DOMESTIC
☐ FOREIGN

5. TYPE OF TRAVEL BY NON-EPA TRAVELER
☐ INVITATIONAL
☐ INTERGOVERNMENTAL PERSONNEL ACT (IPA)

6. DATE

7. APPLICABLE REGULATIONS: ☐ SGTR'S ☐ JTR'S

8A. NAME

8B. TITLE

9A. OFFICIAL STATION

9B. ORGANIZATION

10. TRIP INFORMATION

	A. FROM - DATES - TO MO DA YR MO DA YR	B. DESTINATION (Abbreviated) STATE CITY	C. PURPOSE CODE
TRIP 1			
TRIP 2			
TRIP 3			

D. ITINERARY, PURPOSE, AND OTHER DETAILS

11. ACCOUNTING INFORMATION

A. ACCOUNT NUMBER

B. DCN

C. SERVICING FINANCE OFFICE CODE

12. COST ESTIMATES FOR AUTHORIZED ALLOWANCES

X		TOTAL COST ESTIMATES BY CATEGORY OBJECT CLASS	AMOUNT
	(PER DIEM AND SUBSISTENCE)		
	A1. PER DIEM → $ PLUS AVERAGE COST OF LODGING NOT TO EXCEED → $		
	A2. ACTUAL SUBSISTENCE NOT TO EXCEED → $		
	A3. ACTUAL SUBSISTENCE GSA HRGA → $ AREA →	(A) 2111	
	(OTHER ALLOWANCES)		
	B1. COMMON CARRIER - AIR		
	B2. COMMON CARRIER - TRAIN, BUS, SHIP		
	B3. FIRST CLASS - COMMON CARRIER		
	B4. EXCESS BAGGAGE LBS	(B) 2113	
	C1. INTRACITY TRANSPORTATION *(Taxi, limousine, bus, POV)* AND OTHER INCIDENTAL COSTS	(C) 2117	
	D1. PRIVATELY-OWNED VEHICLE (POV) *(Auto, plane, etc.)* → RATE *(Cents per mile)* *(Justification required)* →	(D) 2114	
	E1. GSA CONTRACT RENTAL - BOAC # → ☐ INTERCITY ☐ TEMPORARY DUTY		
	E2. COMMERCIAL CAR RENTAL ☐ INTERCITY ☐ TEMPORARY DUTY	(E) 2118	
	F1. GOVERNMENT-OWNED (GSA) RENTAL - BOAC # ☐ INTERCITY ☐ TEMPORARY DUTY		
	G1. REGISTRATION FEES	(G) 2544	
	(PERMANENT CHANGE-OF-STATION ALLOWANCES)		
	H1. TRANSPORTATION OF FAMILY		
	H2. RESIDENCE HUNTING		
	I1. TEMPORARY QUARTERS		
	I2. REAL ESTATE EXPENSES		
	I3. MISCELLANEOUS MOVING EXPENSES	(I) 1217	
	J1. SHIPMENT OF HOUSEHOLD GOODS	(J) 2218	
	K1. STORAGE OF HOUSEHOLD GOODS	(K) 2580	
		TOTAL	

13. ADVANCE OF FUNDS APPLICATION *(Note: Outstanding advances must be liquidated within 10 days of completion of trip. When travel is canceled or indefinitely postponed, the full amount of any outstanding advances must be repaid immediately. Unliquidated advances are subject to automatic payroll deductions.)*

A. TYPE
☐ ORDINARY
☐ CONTINUING

B. METHOD OF PAYMENT
☐ CASH
☐ CHECK

C. MAIL CHECK TO: ☐ OFFICE ☐ HOME OFFICE PHONE →

ADDRESS

D. AMOUNT

E. SIGNATURE OF APPLICANT

F. CASH RECEIVED BY

G. DATE CASH RECEIVED

14. TO BE COMPLETED BY SERVICING FINANCE OFFICE
☐ APPROVED ☐ DISAPPROVED

SIGNATURE *(And reason for disapproval, if so checked)*

15. AUTHORIZATION

RECOMMENDING OFFICER

NAME AND TITLE *(Typed)*

SIGNATURE

AUTHORIZING OFFICER

Authority is granted to travel and incur such expenses as may be necessary for this authorization in accordance with EPA policy and applicable regulations. I certify that this trip is essential to the Agency's mission.

NAME AND TITLE *(Typed)*

SIGNATURE

EPA Form 2810-1 (Rev. 10-81) Previous edition is obsolete.

TRAVELER

INSTRUCTIONS

GENERAL: This form is to be used for all temporary duty travel on official business and to request an advance of funds to cover related travel expenses. Please type or print so all copies are legible. Distribution of copies should be in accordance with Chapter 2 of the EPA Travel Manual.

ITEM	ENTRY
1	This preprinted serial number may not be changed unless travel plans are canceled or amended. If a trip is amended or canceled or an additional advance is requested for a previously authorized trip, cross out this number and enter the preprinted serial number of the original travel authorization.
2	Enter the traveler's Social Security Number.
3	Check the appropriate travel authorization code.
4	Check the domestic box if the trip is wholly within the 50 States, the District of Columbia, or territorial areas under the jurisdiction of the United States. Check the foreign box if the trip is to, from, or within points outside of these areas.
5	Check the appropriate boxes regarding the type of travel to be performed by a non-EPA traveler. See Chapters 11 and 15 of the EPA Travel Manual.
6	Enter the date the travel authorization is prepared.
7	Check the SGTR's (Standard Government Travel Regulations) box if the traveler is either a Federal or non-Federal employee. Check the JTR's (Joint Travel Regulations) box if the traveler is a Commissioned Officer.
8A	Enter the traveler's name.
8B	Enter the traveler's position or job title. If the traveler is a Commissioned Officer, enter her/his rank; if not a Federal employee, enter the words "Private Citizen"; if employed by another Federal Agency, enter the name of that agency.
9A	Enter the name of the city and State in which the traveler's organization is located. If the traveler is a private citizen operating out of her/his home or business, enter that address.
9B	Enter the names of the office and division in which the traveler is employed. If the traveler is not a Federal employee, leave this box blank.
10A	Enter the actual starting and ending dates for the period spent at each temporary duty station on the trip. For PCS travel, enter the approximate dates of the move. If additional space is required, use full sheets of paper approximately the same size as this form. Type on each sheet the traveler's name, Social Security Number, travel authorization number, and the applicable trip information. Attach all sheets to this form.
10B	For each temporary duty station, enter the standard two-letter US Postal Service code for the 50 States, the District of Columbia, or territorial areas under the jurisdiction of the United States; or the standard two-letter Federal Information Processing Standards Publication No. 10 (FIPS 10) code for foreign countries in the first two boxes. Enter the first ten letters of the city name in the remaining boxes. For PCS travel, enter the new duty station. Exclude blanks, commas, periods, etc. between two-word cities. E.g., San Francisco, California, would be entered as CASANFRANCIS. (Exclude cities that are merely stopovers in travel to a temporary duty station.)
10C	Enter the appropriate purpose code for each portion of the trip from Chapter 15, Appendix B, of the Financial Management Manual or Chapter 2 of the EPA Travel Manual.
10D	Enter the name of the location from which travel starts and "return," if appropriate. Enter any remarks which may be limiting or pertinent to the trips. If annual leave is granted a traveler while in travel status, enter the justification for the leave and attach a copy of SF-71, Application for Leave, to the back of this form.
11A	Enter the account number applicable to the traveler's program office.
11B	Enter the Document Control Number (DCN) obtained from the Document Control Register Clerk.
11C	Enter the appropriate servicing finance office code listed in Chapter 15, Appendix C of the Financial Management Manual.
12	Check the appropriate boxes regarding the type of allowances authorized. See the EPA Travel Manual for guidance. If the box for privately owned vehicle or commercial car rental is checked, provide a justification in Item 10D. Enter the estimated cost for each object class and the grand total in the amount blocks.
13A	Check the appropriate type-of-advance box. See Chapter 3 of the EPA Travel Manual.
13B	Check the appropriate method-of-payment box.
13C	Check the appropriate box regarding where check is to be mailed and enter the traveler's office or home address. Enter the traveler's office telephone number.
13D	Enter the amount requested.
13E	The traveler signs in this block.
13F	The traveler or the person the traveler designates to pick up the cash signs in this block. (Note: Only the Administrator, Deputy Administrator, Associate Administrators, and Assistant Administrators may designate individuals other than themselves to pick up their cash advances.)
13G	The person who signs in block 13F enters the date the cash was received.
14	Leave this block blank.
15	Type in the name and title of the recommending officer and the authorizing officer. Refer form to them for signatures.

PRIVACY ACT STATEMENT

GENERAL: This information is provided pursuant to Public Law 93-579 (Privacy Act of 1974), December 31, 1974, for individuals performing travel for the Federal Government.

AUTHORITY: Title 5, U.S.C. § 5701, 5702, et seq.; and 5 U.S.C. Chapter 57 as implemented by the Federal Travel Regulations (FPMR 101-7), E.O. 11609 of July 22, 1971, E.O. 11012 of March 27, 1962, and E.O. 9397 of November 22, 1943.

PURPOSE: The primary purpose of the information is to serve as a key identifier of travelers so that proper credit is given to the individual traveler where there are more than one traveler with the same name.

USE: This information will be used internally to monitor travel advance balances in the computerized accounting system. It will be used externally to respond to Congressional inquiries regarding Federal travel.

INFORMATION REGARDING YOUR SOCIAL SECURITY NUMBER: Disclosure by you of your Social Security Number (SSN) is for the purposes of correct identification and clearances for travel advances and claims, and is voluntary. Nondisclosure of your SSN will cause a delay in the processing of your travel advance and travel claims.

EPA Form 2610-1 (Rev. 10-81) Reverse

Reproduced from best available copy.

TRAVEL VOUCHER *(Read the Privacy Act Statement on the back)*	1. DEPARTMENT OR ESTABLISHMENT, BUREAU DIVISION OR OFFICE	2. TYPE OF TRAVEL ☐ TEMPORARY DUTY ☐ PERMANENT CHANGE OF STATION	3. VOUCHER NO 4. SCHEDULE NO.

5. TRAVELER (PAYEE)

a. NAME *(Last, first, middle initial)*	b. SOCIAL SECURITY NO.	6. PERIOD OF TRAVEL a. FROM b. TO
c. MAILING ADDRESS *(Include ZIP Code)*	d. OFFICE TELEPHONE NO	7. TRAVEL AUTHORIZATION a. NUMBER(S) b. DATE(S)
e. PRESENT DUTY STATION	f. RESIDENCE *(City and State)*	10. CHECK NO.

8. TRAVEL ADVANCE	**9. CASH PAYMENT RECEIPT**	**11. PAID BY**
a. Outstanding	a. DATE RECEIVED	
b. Amount to be applied	b. AMOUNT RECEIVED $	
c. Amount due Government *(Attached:* ☐ *Check* ☐ *Cash)*	c. PAYEE'S SIGNATURE	
D. Balance outstanding		

12. GOVERNMENT TRANSPORTATION REQUESTS, OR TRANSPORTATION TICKETS, IF PURCHASED WITH CASH *(List by number below and attach passenger coupon; if cash is used show claim on reverse side.)*

I hereby assign to the United States any right I may have against any parties in connection with reimbursable transportation charges described below, purchased under cash payment procedures (FPMR 101-7) ▶ *Traveler's Initials*

	AGENT'S VALUATION OF TICKET *(a)*	ISSUING CARRIER *(Initials)* *(b)*	MODE, CLASS OF SERVICE AND ACCOMMODATIONS *(c)*	DATE ISSUED *(d)*	POINTS OF TRAVEL FROM *(e)*	POINTS OF TRAVEL TO *(f)*

13. I certify that this voucher is true and correct to the best of my knowledge and belief, and that payment or credit has not been received by me. When applicable, per diem claimed is based on the average cost of lodging incurred during the period covered by this voucher.

TRAVELER SIGN HERE ▶ DATE **AMOUNT CLAIMED** ▶ $

NOTE: Falsification of an item in an expense account works a forfeiture of claim (28 U.S.C. 2514) and may result in a fine of not more than $10,000 or imprisonment for not more than 5 years or both (18 U.S.C. 287; i.d. 1001).

14. This voucher is approved. Long distance telephone calls, if any, are certified as necessary in the interest of the Government. *(NOTE: If long distance telephone calls are included, the approving official must have been authorized in writing by the head of the department or agency to so certify (31 U.S.C. 680a).)*

APPROVING OFFICIAL SIGN HERE ▶ DATE

15. LAST PRECEDING VOUCHER PAID UNDER SAME TRAVEL AUTHORIZATION

a. VOUCHER NO.	b. D.O. SYMBOL	c. MONTH & YEAR

16. THIS VOUCHER IS CERTIFIED CORRECT AND PROPER FOR PAYMENT

AUTHORIZED CERTIFYING OFFICIAL SIGN HERE ▶ DATE

17. FOR FINANCE OFFICE USE ONLY
COMPUTATION

	$
a. DIFFERENCES, IF ANY *(Explain and show amount)*	
b. TOTAL VERIFIED CORRECT FOR CHARGE TO APPROPRIATION *Certifier's initials:*	$
c. APPLIED TO TRAVEL ADVANCE *(Appropriation symbol):*	$
d. **NET TO TRAVELER** ▶	$

18. ACCOUNTING CLASSIFICATION

SCHEDULE OF EXPENSES AND AMOUNTS CLAIMED

INSTRUCTIONS TO TRAVELER *(Unlisted items are self explanatory)*

Col. (c) If the voucher includes per diem allowances for members of employee's immediate family, show members' names, ages, and relationship to employee and marital status of children (unless information is shown on the travel authorization.)

Complete only for actual expense travel
- *Col. (d) thru (g)* Show amount incurred for each meal, including tax and tips, and daily total meal cost
- *(h)* Show expenses, such as laundry, cleaning and pressing of clothes, tips to bellboys, porters, etc. (other than for meals)

(i) Complete for per diem and actual expense travel

(j) Show total subsistence expense incurred for actual expense travel

(m) Show per diem amount, limited to maximum rate, or if travel on actual expense, show the lesser of the amount from col. (j) or maximum rate

(n) Show expenses, such as taxi/limousine fares, air fare (if purchased with cash), local or long distance telephone calls for Government business, car rental, relocation other than subsistence, etc.

Complete this information if this is a continuation sheet.

PAGE ______ OF ______ PAGES

TRAVEL AUTHORIZATION NO.

TRAVELER'S LAST NAME

DATE	TIME	DESCRIPTION	ITEMIZED SUBSISTENCE EXPENSES							MILEAGE RATE ¢	AMOUNT CLAIMED		
			MEALS										
19____ (a)	*(Hour and am/pm)* (b)	*(Departure/arrival city, per diem computation, or other explanations of expense)* (c)	BREAKFAST (d)	LUNCH (e)	DINNER (f)	TOTAL (g)	MISCELLANEOUS SUBSISTENCE (h)	LODGING (i)	TOTAL SUBSISTENCE EXPENSE (j)	NO. OF MILES (k)	MILEAGE (l)	SUBSISTENCE (m)	OTHER (n)
												SUBTOTALS ▶			
											TOTALS ▶			

If additional space is required, continue on another SF 1012-A BACK, leaving the front blank.

In compliance with the Privacy Act of 1974, the following information is provided. Solicitation of the information on this form is authorized by 5 U.S.C. Chap. 57 as implemented by the Federal Travel Regulations (FPMR 101 7), E.O. 11609 of July 22, 1971, E.O. 11012 of March 27, 1962, E.O. 9397 of November 22, 1943, and 26 U.S.C. 6011(b) and 6109. The primary purpose of the requested information is to determine payment or reimbursement to eligible individuals for allowable travel and/or relocation expenses incurred under appropriate administrative authorization and to record and maintain costs of such reimbursements to the Government. The information will be used by officers and employees who have a need for the information in the performance of their official duties. The information may be disclosed to appropriate Federal, State, local, or foreign agencies, when relevant to civil, criminal, or regulatory investigations or prosecutions, or when pursuant to a requirement by this agency in connection with the hiring or firing of an employee, the issuance of a security clearance, or investigations of the performance of official duty while in Government service. Your Social Security Account Number (SSN) is solicited under the authority of the Internal Revenue Code (26 U.S.C. 6011(b) and 6109) and E.O. 9397, November 22, 1943, for use as a tax payer and/or employee identification number; disclosure is MANDATORY on vouchers claiming travel and/or relocation allowance expense reimbursement which is, or may be, taxable income. Disclosure of your SSN and other requested information is voluntary in all other instances; however, failure to provide the information (other than SSN) required to support the claim may result in delay or loss of reimbursement.

Enter grand total of columns (l), (m) and (n), below and in item 13 on the front of this form.

TOTAL AMOUNT CLAIMED ▶

STANDARD FORM 1012 BACK (10-77)

☆ U.S. GOVERNMENT PRINTING OFFICE : 1983 O - 421-526 (9151)

CLAIM FOR REIMBURSEMENT FOR EXPENDITURES ON OFFICIAL BUSINESS

1. DEPARTMENT OR ESTABLISHMENT, BUREAU, DIVISION OR OFFICE

2. VOUCHER NUMBER

3. SCHEDULE NUMBER

Read the Privacy Act Statement on the back of this form.

CLAIMANT 4.

a. NAME *(Last, first, middle initial)*

b. SOCIAL SECURITY NO.

c. MAILING ADDRESS *(Include ZIP Code)*

d. OFFICE TELEPHONE NUMBER

5. PAID BY

6. EXPENDITURES *(If fare claimed in col. (g) exceeds charge for one person, show in col. (h) the number of additional persons which accompanied the claimant.)*

DATE 19__ (a)	CODE (b)	*Show appropriate code in col. (b):* A—Local travel B—Telephone or telegraph, or C—Other Expenses *(itemized)* *(Explain expenditures in specific detail.)* (c) FROM	(d) TO	MILEAGE RATE ¢ NO. OF MILES (e)	AMOUNT CLAIMED MILEAGE (f)	AMOUNT CLAIMED FARE OR TOLL (g)	AMOUNT CLAIMED ADD. PER-SONS (h)	AMOUNT CLAIMED TIPS AND MISCEL-LANEOUS (i)
If additional space is required continue on the back.			SUBTOTALS CARRIED FORWARD FROM THE BACK					
			TOTALS					

7. AMOUNT CLAIMED *(Total of cols. (f), (g) and (i).)* ▶ $

8. This claim is approved. Long distance telephone calls, if shown, are certified as necessary in the interest of the Government. *(Note: If long distance calls are included, the approving official must have been authorized, in writing, by the head of the department or agency to so certify (31 U.S.C. 680a).)*

Sign Original Only

APPROVING OFFICIAL SIGN HERE ▶

DATE

9. This claim is certified correct and proper for payment.

Sign Original Only

AUTHORIZED CERTIFYING OFFICER SIGN HERE ▶

DATE

10. I certify that this claim is true and correct to the best of my knowledge and belief and that payment or credit has not been received by me.

Sign Original Only

CLAIMANT SIGN HERE ▶

DATE

11. CASH PAYMENT RECEIPT

a. PAYEE *(Signature)*

b. DATE RECEIVED

c. AMOUNT

$

12. PAYMENT MADE BY CHECK NO.

ACCOUNTING CLASSIFICATION

1164-210

STANDARD FORM 1164 (Rev.11-77)
Prescribed by GSA, FPMR (CFR 41) 101-7

6. EXPENDITURES—*Continued*

DATE 19__	CODE	*Show appropriate code in col. (b):* A—Local travel B—Telephone or telegraph, or C—Other Expenses *(Itemized)*		MILEAGE RATE ¢	AMOUNT CLAIMED			
		(Explain expenditures in specific detail.)		NO. OF MILES	MILEAGE	FARE OR TOLL	ADD. PER-SONS	TIPS AND MISCEL-LANEOUS
(a)	(b)	(c) FROM	(d) TO	(e)	(f)	(g)	(h)	(i)
			Total each column and enter on the front, subtotal line ▶					

In compliance with the Privacy Act of 1974, the following information is provided: Solicitation of the information on this form is authorized by 5 U.S.C. Chapter 57 as implemented by the Federal Travel Regulations (FPMR 101-7), E.O. 11609 of July 22, 1971, E.O. 11012 of March 27, 1962, E.O. 9397 of November 22, 1943, and 26 U.S.C. 6011(b) and 6109. The primary purpose of the requested information is to determine payment or reimbursement to eligible individuals for allowable travel and/or other expenses incurred under appropriate administrative authorization and to record and maintain costs of such reimbursements to the Government. The information will be used by Federal agency officers and employees who have a need for the information in the performance of their official duties. The information may be disclosed to appropriate Federal, State, local, or foreign agencies, when relevant to civil, criminal, or regulatory investigations or prosecutions, or when pursuant to a requirement by this agency in connection with the hiring or firing of an employee, the issuance of a security clearance, or investigations of the performance of official duty while in Government service. Your Social Security Account Number (SSN) is solicited under the authority of the Internal Revenue Code (26 U.S.C. 6011(b) and 6109) and E.O. 9397, November 22, 1943, for use as a taxpayer and/or employee identification number; disclosure is MANDATORY on vouchers claiming payment or reimbursement which is, or may be, taxable income. Disclosure of your SSN and other requested information is voluntary in all other instances; however, failure to provide the information (other than SSN) required to support the claim may result in delay or loss of reimbursement.

☆U.S. G.P.O. 1983-381-926/8218

STANDARD FORM 1164 Back (Rev.11-77)

10B PAY ADMINISTRATION

A detailed discussion of rules and regulations regarding time-keeping and pay is beyond the scope of this guide. Anyone wishing an in-depth understanding should consult with his or her personnel office, and the Resources Management Directives System (RMDS), Division 2550-A, Part 1, "Timekeeping," and EPA's Pay Administration Manual.

In this section, the discussion focuses on issues of particular concern to inspectors, who travel frequently and may in some cases be entitled to overtime or hazardous duty pay.

Key Definitions

Basic pay is the rate of pay fixed by law or administrative action for the position held by the employee before any deductions (such as taxes) and any additional pay (such as overtime).

Premium pay is additional pay authorized for overtime, night, holiday, or Sunday work, and for standby duty or administratively uncontrollable work.

Overtime pay is pay earned for work in excess of 8 hours per day or 40 hours in an administrative workweek. It includes regular overtime work and irregular or occasional overtime work. It may be paid to full-time and part-time, permanent and temporary employees.

Sunday work and holiday work is non-overtime work performed during a regularly scheduled daily tour of duty which falls on a Sunday or a Federal holiday, respectively.

Standby duty is work performed in addition to the normal 40-hour workweek whereby the employee is officially ordered and required to stand by at, or within the confines of, the work station. While not performing actual work, the employee is in readiness to answer any call for his or her services (e.g., emergency response teams). Other specific criteria must also be met for a position to include standby duty.

Hazardous duty, or duty involving physical hardship or hazard, is irregular or intermittent duty involving unusual physical hardship or hazard to employees.

Administratively uncontrollable work is hours of irregular or occasional overtime work found in a position in which the hours of duty cannot be controlled administratively, and is inherent in the nature of the job (e.g., a criminal investigator who must perform surveillance).

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Summary of Premium Pay

Following is a summary of premium pay for General Schedule (GS) employees.

Computation of hourly rate of basic pay:	Annual salary divided by 2087 hours
Overtime hourly rate of pay:	GS-10 Step 1 and below: 1-1/2 x hourly rate of basic pay GS-10 Step 2 and above: 1-1/2 x hourly rate of GS-10/1
Holiday pay:	
Day off:	Basic pay
Work on holiday:	Basic pay + 100% basic pay (no less than 2 or more than 8 hours); holiday overtime is paid at the same rate as overtime paid on another day
Maximum limit on premium pay:	Not to exceed pay for GS-15/10 in biweekly pay period
Hazard pay:	Basic pay = (not to exceed 25% of employee's basic pay); not subject to aggregate salary limitation
Compensatory time off:	Hour for hour for irregular overtime work
Sunday pay:	Basic pay + 25% of basic pay; Sunday overtime is paid at same rate as overtime performed on another day
Night pay/differential:	10% for hours worked between 6 p.m. and 6 a.m.
Administrative uncontrollable work pay:	Basic pay = (not less than 10% or more than 25% of that portion of basic pay which does not exceed GS-10/1)

Standby and Hazardous Duty

Standby Duty

In standby duty, the employee's whereabouts are narrowly limited and his or her activities are substantially limited. The employee is required to remain at his or her living quarters or post of duty, and must remain in a state of readiness to answer calls for his or her services. Standby scale ranges from 5% to 25% of basic pay; the percentage paid depends on tour category and number of hours per week required to be in standby status.

Hazardous Duty

An employee receives hazardous duty pay if he or she is assigned to perform irregular or occasional hazardous duty, but the hazardous duty is not a part of regular duties. Hazardous duty pay does not apply in a position where the hardship or hazard is already factored into the classification. Hazardous duty pay is only paid when the employee is assigned to perform hazardous duty or duty involving physical hardship and is not paid to a volunteer (e.g., someone who undertakes the task without authorization either expressed or implied).

Duty involving physical hardship is duty causing extreme physical discomfort or distress that is not adequately alleviated by protective or mechanical devices. Examples include exposure to extreme temperatures for a long period of time; arduous physical exertion (e.g., cramped conditions); exposure to fumes, dust, or noise which causes nausea, skin, eye, ear, or nose irritation.

Hazardous duty is duty performed under circumstances in which an accident could result in serious injury or death. Examples include work on a high structure where protective facilities are not used or work on an open structure complicated by darkness, lightening, steady rain, and high wind velocity.

EPA Safety Policy

EPA's safety policy is that no employee be exposed to physical hardship or hazardous duty situations without protective safeguards. When adequate safety precautions have reduced the risk to a negligible level, no hazard pay differential is authorized.

If an emergency response, waste removal, or other situation involving hazardous conditions warrants a Level A, B, or C category of protection, as described in the OSWER Standard Operating Safety Guides, then it can be considered that no safety precautions can be taken which will reduce the degree of risk to a negligible level. In such situations, hazardous pay should be authorized, provided all other regulatory requirements are met.

If protective clothing and respirators are worn at a site of unknown hazard as a precautionary measure only and the situation later turns out to be non-hazardous, hazard pay may not be granted.

If protective clothing and respirators are not worn at a site, presumed to be non-hazardous, which later turns out to be hazardous, hazard pay should be granted.

Questions as to whether a risk is negligible or not should be referred to the designated safety official in the EPA Region or Headquarters.

FLSA Exempt and Non-Exempt Federal Employees

Some EPA employees are covered by the Fair Labor Standards Act (FLSA); these employees are termed "non-exempt." Other EPA employees are "exempt" from coverage by the FLSA. Generally, an employee is either exempt or non-exempt under the following conditions and grades.

• Grades 1-4:	Automatically non-exempt
• Grades 5-6:	Non-exempt if less than 80% of the work performed is executive, administrative, or professional.
• Grades 7-10:	Employees are exempt if their primary (grade-controlling) duty, generally covering 50% or more of work, is executive, administrative, or professional. Generally, employees in two-grade interval positions are non-exempt at the grade 7 level and are exempt at the 9 level.
• Grades 11-15:	These are presumed to be exempt unless a waiver is granted by the Office of Personnel Management.

Pay, benefits, and leave policy for exempt employees is established by Title 5.

Premium Pay During Travel and Training

Travel Time Outside Normal Work Hours

Whether time spent traveling outside an employee's regular duty hours may be considered duty status for pay purposes could depend on one or more of the following: (1) the specific conditions under which such travel is performed; (2) whether the employee is covered by FLSA; and (3) if the employee is a non- exempt FLSA employee traveling on non-work days during hours corresponding to their usual work hours.

All employees are entitled to compensatory time or overtime pay if their travel involves one of the following conditions:

- Travel involves the performance of work. This requires the prior approval of a supervisor. Examples include reading or working on a work product on a plane, or escorting a prisoner to a distant prison.

- Work is incident to travel involving performance of work. This is work which can only be performed while traveling. Examples include a specialist who performs in route surveillance, or a truck driver traveling to a point of pickup of a truck to be driven to another destination.

- Work is performed under arduous and unusual conditions. Examples would be travel over unusually adverse terrain; during severe weather; or to remote areas, barely accessible by foot, horseback, or truck.
- Travel results from an event which could not be scheduled or controlled administratively. Examples include: an emergency requiring testimony before a Congressional subcommittee on Monday morning which required the employee to travel on Sunday, work which results from unforeseen circumstances such as an equipment breakdown, or travel by an investigator to render immediate technical assistance in the investigation of an air accident.

For FLSA non-exempt employees travel time and travel to training time is counted as hours of work under the following conditions:

- Day travel to temporary duty station (TDY): Travel time minus normal commute time, or all time if working while traveling.
- Overnight travel to TDY: All time "actually working," or if traveling as a passenger, only time traveling during "corresponding hours."

For FLSA-exempt employees travel time is counted as hours of work only during the regularly scheduled administrative workweek (to the maximum extent possible).

Premium Pay for Training Outside Normal Working Hours

FLSA-exempt employees are prohibited from receiving premium pay for the time period spent in training.

A FLSA non-exempt employee may receive premium pay for time spent outside normal working hours in training if directed by the Agency to attend the training, under the conditions below.

- The employee can receive premium pay for preparation and attendance if the training is required for the employee to reach an "acceptable level of competence" or to learn new skills or processes required for his or her current position.
- The employee may not receive premium pay if the training is to bring the employee beyond the acceptable level of competence; to acquire new skills for reassignment or advancement to a higher grade; or training in an apprenticeship, internship, or Veterans Readjustment Act program.

10C PROCUREMENT

Regulations governing procurement are complex and voluminous. Only designated Headquarters and Regional personnel have the authority to call vendors and place orders for supplies, equipment, or other services. They also comparison shop to obtain the best prices. All procurement actions must be approved by these designated individuals, who will help EPA staff make needed purchases in compliance with the regulations. The purpose of this section is to provide inspectors with information and guidance that will help to assure smooth and timely processing of Procurement Requests (PRs, EPA Form 1900-8).

A small purchase is defined as an acquisition of equipment, supplies, or nonpersonal services on the open market in the amount of $25,000 or less. (Larger purchases are governed by different requirements and are not covered here.)

Advance Planning for Procurement

Advance planning -- identifying supplies and equipment that will be needed to carry out inspections -- is the best way to help ensure that the products and services will be acquired without disruption. Determine the logistical needs of the inspection and prepare a Procurement Request (PR) for each item on the list. (For field supplies, see also the discussion of Physical Sampling in Chapter 13.)

Suggestions for advance planning are:

- Take and maintain an inventory of office supplies, equipment, and other needs.
- Establish a list of two or three sources that are capable of supplying identifiable needs.
- Conduct early discussions with the purchasing unit regarding any planned activities and any unique or proposed sole source requirements.
- Submit PRs early to allow sufficient time for competition.
- Be sure that the specifications or statement of work meets your total needs.
- Allow sufficient time for typing error-free and accurate PRs by staff.

Small Purchases and the Imprest Fund

If the items needed can be picked up locally, it may be possible to obtain an advance from Imprest Funds for the purchase. There is a dollar limit for the amount that can be obtained this way, e.g., $500.

Specific procedures vary by Region, but in all cases a completed Procurement Request with appropriate approvals will be required. A signed receipt for the supplies will need to be returned to the Agency.

Preparation of the Procurement Request Form

EPA Form 1900-8 (see Exhibit 10-1) consists of a non-shaded area that is to be filled out by the EPA program office seeking goods or services, and a shaded area that is filled out only by the purchasing unit. Instructions for completing the form are provided on a cover sheet to the form.

The program office must ensure that financial data is provided in Block 12, and that the amount of money cited is adequate to pay for the purchase of goods or services.

To avoid delays due to a need for re-typing, the program office must provide an accurate and legible document devoid of strikeovers. There must not be any writing or typing over the shaded areas.

In Block 26(b) entitled, "Supplies or Services," type or write only a description of supplies or services to be acquired; no justification or other information should be included. All information not required on Form 1900-8 should be provided on a separate attachment; this will significantly reduce processing time.

The following information is usually required for a procurement:

Signatures

1) Originator
2) Branch Chief
3) Division Director
4) Commitment Clerk (Administrative Assistant)
5) Property Management Officer
6) Finance Office designee (FMO, Accountant, or Budget Analyst)
7) Procurement Agency

Accounting Data

1) Appropriation
2) Account Number
3) Document Control Number
4) Object Class
5) Total Cost

Other Requirements

1) To whom the items should be delivered
2) Delivery address
3) Suggested source (if known)
4) Complete description of item
5) Quantity ordered
6) Justification for the purchase

Once delivery of the items or services has been accepted, it is the receiving office's responsibility to provide the finance office with the signed receiving report. This report is on the back of Copy 5 of the Procurement Request, which will have been returned to the originator by the procurement agent as soon as the order was completed. As soon as delivery is accepted, sign the form and send it to the finance office. Regulations require that this report be in hand before payment can be made to the vendor.

Unauthorized Procurements

An unauthorized procurement results when an individual who is not authorized to make a commitment on behalf of the government does so and causes a vendor to perform a service or to deliver a product which creates an obligation.

Except for paid advertisements, which the EPA is not authorized to ratify, unauthorized purchases may be ratified by the head of the contracting office, i.e., Washington, Cincinnati, and RTP, if it is determined that the action would have been proper had an individual with the appropriate delegated contracting officer's authority made the commitment.

If the action is considered "improper" and cannot be ratified, the government has no legal liability to pay it. The employee who made the purchase might have to pay.

Procedures for consideration for ratification of an unauthorized purchase will vary by Region, but will usually involve a division director level memorandum of explanation, an invoice, a Procurement Request form showing that sufficient funds are available, and a justification for sole source acquisition if the purchase was for more than $1,000.

Unauthorized actions can be avoided with good planning, and immediate notification of the purchasing office if there is an urgent or unforeseen need for supplies or services.

Purchases in the Field

No matter how much advance planning has been done, there may be a time when something is needed that was not thought of before departure. Procurement in the field is tricky.

The regulations require that a procurement agent approve all procurement actions. Always call in and report what is needed and why it is needed before making the purchase. This will allow preparation of the proper documentation. In addition to contacting the procurement agent, contact the office commitment clerk (administrative assistant) and report what items and services are being acquired, since it is his or her responsibility to track costs and be aware in "real time" how much money is being spent.

By calling in, the items can be entered into the Document Control Register, the Procurement Request can be prepared, and all approvals obtained prior to return of the inspector to the office.

Always obtain a signed receipt for any goods, supplies, or services purchased that can be presented for reimbursement. Submit the receipt with the travel voucher, indicating that a call was made to report the purchase.

If these simple procedures are not followed, it may be necessary to submit the procurement to Headquarters for ratification, a time-consuming process which could delay reimbursement.

(Shaded areas are for use of procurement office only)

Page of

US Environmental Protection Agency
Washington, DC 20460

EPA

Procurement Request/Order

1. Name of Originator
2. Date of Requisition
3. Mail Code
4. Telephone Number
5. Date Item Required
6. Signature of Originator
7. Recommended Procurement Method
☐ Competitive ☐ Other than full and open competition ☐ Sole source small purchase
8. Deliver To *(Project Manager)*
9. Address
10. Mail Code
11. Telephone Number

12. Financial Data

a. Appropriation

b. Servicing Finance Office Number

NOTE: Item 12(d) Document Type — Contract = "C," Purchase Order = "P"

FMO Use (c) *(13 digits)*	DT (d)	Document Control Number (e) *(6 digits)*	Account Number (f) *(10 digits)*	Object Class (g) *(4 digits)*	Amount (h) Dollars	Cents

13. Suggested Source *(Name, Address, ZIP Code, Phone/Contact)*

14. Amount of money committed is:
☐ Original
☐ Increase
☐ Decrease

15. For Small Purchases Only: Contracting Office is authorized to exceed the amount shown in Block 12(h) by 10% or $100, whichever is less.
☐ Yes ☐ No

16. Approvals

a. Branch/Office	Date	d. Property Management Officer/Designee	Date
b. Division/Office	Date	e. Other *(Specify)*	Date
c. Funds listed in Block 12 and Block 15 *(if any)* are available and reserved. *(Signature of Certifying Official)*	Date	f. Other *(Specify)*	Date

17. Date of Order
18. Order Number
19. Contract Number *(if any)*
20. Discount Terms
21. FOB Point
22. Delivery to FOB Point by On or before *(Date)*
23. Person Taking Order/Quote and Phone No.
24. Contractor *(Name, address, ZIP Code)*
25. Type of Order

☐ a. Purchase

Reference your quote *(See block 23)*

Please furnish the above on the terms specified on both sides of this order and on the attached sheets, if any, including delivery as indicated.

☐ b. Delivery provisions on the reverse are deleted. The delivery order is subject to the terms and conditions of the contract. *(See Block 19)*

c. ☐ Oral ☐ Written ☐ Confirming

26. Schedule

Item Number (a)	Supplies or Services (b)	Quantity Ordered (c)	Unit (d)	Estimated Unit Price (e)	Unit Price (f)	Amount (g)	Quantity Accepted (h)
					Total $		

27. United States of America By *(Signature)*

28. Typed Name and Title of Contracting Officer

EPA Form 1900-8 (Rev. 9-86) Previous editions are obsolete.

COPY 1—PROCUREMENT FILE/CONTRACTING OFFICER

Instructions for Completing EPA Form 1900-8
Procurement Request/Order

General:

This form is a 9-part interleaved set and is designed to be completed with an elite typewriter (12 pitch). The originating office should complete all areas that apply. Shaded areas are reserved for Procurement use only. After completing the form, in accordance with the instructions below, retain the copy marked for "Originator" and send the others through required channels.

Item:	
1 thru 6	Enter the originator's name, mail code, telephone number, date of requisition, signature of originator, and the latest date that the items can be delivered.
7	Self explanatory. Attach a justification for other than full and open competition or for sole source small purchases.
8 thru 11	Enter the name, address, mail code, and telephone number. If the person is the same as the originator, leave blank.
12	Self explanatory. Failure to include the appropriation number, the number of the Servicing Finance Office designated by the Financial Management Division for the accounting office which will record the commitment and obligation, document type, document control number, account number, object class, or dollar amount may result in the return of the request to the originator for completion of these items. Special care should be taken to insure that all data placed in these blocks are accurate and appear legibly on all copies as these data will serve to record the commitment of funds as well as to eventually obligate the funds on the contract document. **Note:** Item 12(d) should be used to denote document type (DT) code, i.e., C = EPA prime contract, P = EPA purchase or delivery order.
13	If more than 1 source is suggested, attach a list of the contractor's/vendor's name, address, and point of contact (if known) for each source.
14	Self explanatory.
15	**For Small Purchases Only:** Check one box. If "Yes" is checked,the funds certifying official must commit sufficient funds in the Document Control Register to cover the total potential amount of the obligation.
16	Self explanatory.
17 thru 25	For procurement office use only.
26(a)	Self explanatory.
26(b)	The degree of detail required will vary with the complexity of the proposed procurement. Each request shall contain sufficient information on its face to process the request. If the proposed procurement is for nonpersonal work or services, provide a title which specifically describes the work or services to be procured and limit the title to sixty (60) positions, including the spaces between each word of the title for computer input, and attach the documentation required in Chapter 2 of the Contracts Management Manual. In other instances, describe the article(s) requested in detail using manufacturer's model numbers and descriptions, if possible, and provide specification, quantity increment, delivery requirement, and special packaging or transportation requirements. (Use EPA Form 1900-8A, Continuation Sheet, if additional space is required.)
26(c) and 26(d)	Self explanatory.
26(e)	Enter the estimated price of the item
26(f) and 26(g)	For Procurement use only — **Leave Blank.**
26(h)	Used for inspection and acceptance only.
27 and 28	To be completed by the contracting officer.
Note:	The contracting officer will complete the blocks marked "Invoice Address" and "Ship To" on copy 2 when this form is used as a purchase order.

CHAPTER 11

GAINING ENTRY AND OPENING CONFERENCE

The initial face-to-face contact between the inspector and facility officials helps to set the tone of the inspection and the degree to which the facility officials actively cooperate.

This contact begins with steps to gain entry into the facility. Key points related to entry are summarized in Section 11A, and are discussed in detail in Chapter 7. Entry is followed by an opening conference (Section 11B) in which the inspector explains the purpose of the inspection and makes logistical arrangements for carrying out on-site activities.

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11A GAINING ENTRY

EPA's authority to conduct inspections is discussed in detail in Chapter 7, as are EPA's policy and procedures for consensual entry and for seeking and inspecting with a warrant. It is essential to follow these procedures and to document that they were followed to assure that any information collected during the inspection cannot be challenged as being unlawfully obtained.

Key points associated with beginning entry to a facility for inspection purposes are summarized below; see Chapter 7C for a complete discussion of each.

- EPA's policy is to enter with the consent of facility officials.
- Arrival should be during normal working hours and through the main gate unless special circumstances dictate otherwise.
- Credentials must be presented whether identification is requested or not.
- A written Notice of Inspection must be presented and signatures obtained in inspecting under TSCA, FIFRA, or SDWA authority.
- EPA's inspection authority is broad. It includes authority to take samples, take photographs, make tape recordings, photocopy documents, or otherwise manually or electronically record any information at the facility.
- If facility officials deny consent, seek to limit the scope of the inspection, or otherwise attempt to place conditions on the inspector's conduct of the inspection, the inspector should leave the premises immediately. The inspector should contact the appropriate EPA official (usually, the inspector's supervisor, who consults with Regional attorneys) and await direction on next steps to take, such as seeking a warrant.
- When inspecting with a warrant, the inspector must follow carefully the terms and conditions of the warrant.

EPA United States
Environmental Protection
Agency

NOTICE OF INSPECTION

Name of Firm

Firm Address

Inspector Name and Address

Date

Time

Inspector's Signature

Name and Title of Recipient

Title

Signature of Recipient

REASON FOR INSPECTION

Under the authority of Section 11 of the Toxic Substances Control Act

☐ For the purpose of inspecting (including taking samples, photographs, statements, and other inspection activities) an establishment, facility, or other premises in which chemical substances or mixtures or articles containing same are manufactured, processed or stored, or held before or after their distribution in commerce (including records, files, papers, processes, controls, and facilities) and any conveyance being used to transport chemical substances, mixtures, or articles containing same in connection with their distribution in commerce (including records, files, papers, processes, controls and facilities) bearing on whether the requirements of the Act applicable to the chemical substances, mixtures, or articles within or associated with such premises or conveyance have been compiled with.

☐ In addition, this inspection extends to (circle appropriate letters):

(A) Financial data
(B) Sales data
(C) Pricing data
(D) Personnel data
(E) Reserach data

The nature and extent of inspection of such data specified in A through E above as follows:

11B OPENING CONFERENCE

Once credentials and required notices have been presented, the inspector can proceed to hold the opening conference with facility officials. During this meeting, the inspector presents an overview of the inspection plan and queries facility officials to gain a fuller understanding of the facility's organization, to obtain current information regarding facility operations and processes, and to clarify any key issues or ambiguities identified during the process of planning the inspection. This section addresses the inspector's role in conducting the opening conference, together with relevant meeting agenda items. This section concludes with a discussion of mid-course adjustments that may be needed in response to information divulged during the opening conference.

The Inspector's Role During the Opening Conference

The opening conference establishes a forum for the exchange of information between EPA inspection personnel (and by extension, the Agency) and facility officials. This information exchange should focus on, but not be limited to, the inspection itself. The inspector should be aware of several principles that can increase the effectiveness of the opening meeting:

- Gain an early rapport.
- Start the meeting on a positive and professional note.
- Prepare and use any supporting information that will enhance the discussion; e.g., a copy of the Act, technology transfer materials, or other resources.
- Acknowledge that the inspection may disrupt daily facility routines, but assert that reasonable efforts will be made to minimize such disruptions.
- Listen carefully and be willing to answer facility officials' questions. But, do not permit yourself to be maneuvered into bending EPA policies/procedures or overstepping your authority in an attempt to accommodate facility representatives. For example, do not give opinions that are "shot from the hip" about whether facility practices, as described during the discussion, are acceptable and will be found in compliance.

A cooperative working relationship developed during this opening meeting can set the tone for the remainder of the inspection. It also can be used as the foundation for strengthening Agency-industry relationships. If approached properly, the opening conference provides an ideal opportunity for the inspector to function as a public relations liaison and educator.

From the perspective of both the Agency and the regulated community, the inspector is well-positioned to serve as a source of regulatory information. As such, the inspector should provide tactful help before, during, and after the inspection.

Areas of particular concern include:

- Voluntary compliance.
- Overview of the law.
- Specific regulation requirements.
- Help with facility-specific problems.
- Agency outreach efforts.
- Other sources of assistance.

Meeting Agenda Items

The opening conference should be used to inform facility representatives of the general purpose and scope of the inspection and the requisite logistical arrangements. At the same time, the inspector should use the meeting to refine an understanding of the facility's operations and practices so that an assessment can be made of the necessity to make mid-course adjustments to the Inspection Plan.

Statement of Purpose

An outline of inspection objectives will inform facility officials of the purpose and scope of the inspection, and may help avoid misunderstandings. The EPA inspector should explain the anticipated post-entry inspection activities in general terms. This discussion should avoid providing the facility representatives with the precise focus of the inspection. There are two reasons to emphasize the general purposes, while avoiding the specific focus of activities:

- Providing facility representatives with the specifics may create a situation whereby they use that knowledge as essentially advance notification, and contrive some appearance of compliance (or hide violations) in those areas they now know will be subject to scrutiny.
- The use of a general description of purposes minimizes the likelihood that facility officials, once having consented to the inspection as generally described, will withdraw consent based upon their perception that the inspection includes more than they understood and agreed to (or at least, did not refuse).

  Conversely, the use of specifically focused statements of purpose may circumscribe the nature of a facility's consent. That is, facility representatives may incorrectly perceive that they are agreeing only to those items mentioned and, by extension, onto to any others. Such perceptions could contribute to misunderstandings later on.

Understanding Facility Operations and Practices

The opening conference permits inspection personnel to query facility representatives about current operations and practices, as well as organizational accountability and personnel, that may not have been included (or requires clarification) in Agency records. The key areas to address are (as adapted from the "Environmental Auditing Skills and Techniques Workbook," Arthur D. Little, Inc. for the Edison Electric Institute):

- The nature of the operations. The inspector should establish what activities take place from an operational standpoint; what materials are used; and what the environmental implications are.

- The major facility environmental programs. The inspector should query what programs are in place at the facility, such as effluent sampling, analysis and reporting, training, inspection and maintenance of pollution control equipment, emergency response, etc.

- The applicability of environmental regulations. Verify that facility operations and programs have not changed in such a way as to alter the regulations or requirements that apply to the site. For instance, the inspector may learn that a facility has recently obtained a new permit to store wastes on-site or that it no longer has PCBs on-site. Such information will permit the inspector to review and revise the Inspection Plan, if necessary, by shifting the emphasis of planned activities, deleting inappropriate activities, and/or adding new activities that were not initially considered relevant.

- Key responsibilities, authorities, and accountabilities. The inspector should establish who is responsible for: specific environmental activities, communicating the chain-of-command in case of emergencies, developing environmental performance measures, etc. In addition, it is important to clarify what authorities have been specifically delegated, and how accountabilities are established and maintained.

  A telephone directory or a chart showing how the facility is organized can be requested. The above information will assist the inspector in determining which individuals are knowledgeable about specific areas and who should be interviewed.

Logistical Arrangements

Logistical requirements and arrangements should be addressed in the opening conference to minimize delays and avoid misunderstandings. Relevant considerations include:

- Accompaniment. It may be beneficial to encourage a facility official to accompany the inspector during the inspection (or selected parts of it) to describe the facility and its principal operating characteristics and, where appropriate, to indicate which processes, records, etc., should be claimed as confidential business information.

- Safety requirements. The inspector should determine what OSHA and facility safety regulations will be involved in the inspection, and should be prepared to meet these. Note, however, that EPA typically has its representatives use the same safety equipment that is actually used by employees. EPA has the right to and does decline to undergo the safety training that facilities require of their employees, with the exception of site-specific mine safety training required under EPA Order 1440.4.

- Order of inspection. A discussion of the order in which operations will be inspected will help eliminate wasted time by allowing officials time to make records available and start up intermittent operations.

- List of records. A list of records to be inspected will permit officials to gather and make them available for the inspector. If, however, the inspector has any reason to believe that such "advance warning" will tempt facility representatives to "sanitize," withhold portions, or destroy records, such a list should be prepared for inspector use only, but not for submission to facility officials.

- Meeting schedule. Based upon the planned inspection activities and the inspector's understanding of facility personnel responsible for key assessment topic areas, a schedule of meeting times can be developed. This will permit key personnel to clear time to meet with the inspector.

- Duplicate samples. For three of the EPA administered statutes (CERCLA, FIFRA, and RCRA), facilities have a right to receive a duplicate of any physical sample (liquid or solid) collected for laboratory analysis. If these circumstances apply, the inspector should inform facility officials of their right to duplicate samples during the opening conference. Officials should indicate at that point their desire to receive duplicate samples so that arrangements can be made to secure these samples during the inspection.

Mid-Course Adjustments to Inspection Plan

After the opening conference, the inspector (or inspection team) should have sufficient information to decide whether any fundamental changes to the inspection plan, which was developed prior to arriving on-site, are necessary. If the opening conference did not uncover any information that requires adjustment of anticipated activities, then the solo inspector or team should proceed as planned. However, if the opening meeting provided information that is critical to meeting inspection objectives, but was not originally anticipated, then on-site activities should be adjusted accordingly. For example, if the facility is found to be a generator of large quantities of hazardous waste (and this was not expected during the planning stage), then it may make sense to concentrate more on hazardous waste management activities than originally planned.

When reviewing the inspection plan, the inspector should bear in mind that changes in the scope of the inspection must be accommodated within the constraints of available resources, such as time and manpower. Particular attention must be paid to the initial sampling plan, as well as to the development of an altered sampling plan, to ensure that any unforeseen additions to the inspection can be accomplished utilizing the sampling equipment that has been brought on-site. Additionally, if the sampling plan is subjected to revision, care should be exercised in the selection of "new" representative sampling sites and in reviewing appropriate procedures for sample collection. If the inspection is being conducted as a team effort (rather than by a solo inspection), review of the inspection plan should also focus attention on:

- Appropriateness of Task Assignments, Given the Modifications to Planned Activities. Based upon the information gathered to date, the appropriateness of inspection assignments should be re-evaluated. Since each inspector will have prepared for his assigned role in the on-site activities, it may not be effective to switch assignments once on-site. However, it may be appropriate to shift the emphasis or to shift additional team member support to assessment areas that, upon review, appear understaffed.

- Confirm Time Availability. Since the team is actually assembled on-site, where first-hand observations of facility size, layout, and complexity are possible, it is important to re-check whether inspection activities can actually be completed in the allotted time and whether each team member's task assignments are reasonable given time and scheduling constraints. A review of the finalized sampling plan is essential to developing an accurate assessment of such issues.

Exercising Judgment in the Field

Ideally, on each inspection, EPA inspectors would determine compliance with every requirement applying to the facility and every suspected violation would be fully documented. Although EPA's goal is to come as close as possible to this ideal, the realities of time and resource constraints as well as the practical limits on the number of physical samples that can be collected on one trip, mean that inspectors must often make judgments about exactly what to inspect at a given facility and how thoroughly.

The scope and objectives of an inspection should be established as part of the inspection planning process. Since most facilities are subject to many different requirements even under one statute, the inspection plan should set out in advance which requirements will be focused on in the inspection and the activities that will be undertaken to determine compliance with them.

Once on the site, the inspection plan serves as a guide to the inspection. Often, however, an inspection turns out to be more complex than anticipated, or multiple violations are observed, or violative conditions that are not the original focus of the inspection are found. The inspector is then faced with determining whether the original plan should be followed or modified and the degree to which each potential violation should be documented.

While there are no hard and fast rules for making these judgments, the inspector can prepare for them by being familiar with the particular program's enforcement priorities and how serious the Agency considers various categories of violations. As a quick guideline when choices must be made in the field, inspectors should most fully document the more serious violations, being sure to collect sufficient information necessary for determining an appropriate enforcement response. This is because, stated generally, the likelihood that the Agency will pursue a formal enforcement action -- and the size of the civil penalty assessment, when appropriate -- increase with the seriousness of the violation. The standard of proof required to prove that a violation occurred also increases with the level of enforcement action taken (informal, administrative, judicial). Likewise, the likelihood of a challenge to the Agency's action increases with the level of action and size of penalty assessment.

Program enforcement response and penalty policies, compliance monitoring strategies, and other planning documents such as the Operating Year Guidance are good sources for information regarding program priorities and the seriousness attached to various categories of violations. The inspector should also follow EPA inspection and sampling procedures prescribed in EPA guidance. The inspector should document any deviation from Agency Standard Operating Procedures.

TSCA INSPECTION CONFIDENTIALITY NOTICE

EPA United States Environmental Protection Agency

TSCA INSPECTION CONFIDENTIALITY NOTICE

Inspector Name

Inspector Address

Name of Individual to Whom Notice Given

Title

Facility

Facility Address

Chief Executive Officer of Firm

Title

It is possible that EPA will receive public requests for release of the information obtained during inspection of the facility above. Such requests will be handled by EPA in accordance with provisions of the Freedom of Information Act (FOIA), 5 U.S.C. 552; EPA regulations issued thereunder, 40 CFR Part 2; and the Toxic Substances Control Act, Section 14. EPA is required to make inspection data available in response to FOIA requests unless the Administrator of the Agency determines that the data contains information entitled to confidential treatment.

Any or all the information collected by EPA during the inspection may be claimed confidential if it relates to trade secrets or commercial or financial matters that you consider to be confidential. If you make claims of confidentiality, EPA will disclose the information only to the extent, and by means of the procedures, set forth in the regulations (cited above) governing EPA's treatment of confidential information. Among other things, the regulations require that EPA notify you in advance of publicly disclosing any information you have claimed and certified confidential.

To Claim Confidential Information

To claim information confidential, you must certify that each claimed item meets *all* of the following criteria:

1. Your company has taken measures to protect the confidentiality of the information, and it intends to continue to take such measures.
2. The information is not, and has not been, reasonably obtainable without your company's consent by other persons (other than governmental bodies) by use of legitimate means (other than discovery based on a showing of special need in a judicial or quasi-judicial proceeding).
3. The information is not publicly available elsewhere.
4. Disclosure of the information would cause substantial harm to your company's competitive position.

At the completion of the inspection, you will be given a receipt for all documents, samples, and other materials collected. At that time, you may make claims that some or all of the information is confidential and meets the four criteria listed above.

If you are not authorized by your company to make confidentiality claims, this notice will be sent by certified mail, along with the receipt for documents, samples, and other materials to the Chief Executive Officer of your firm within two days of this date. The Chief Executive Officer must return a statement specifying any information which should receive confidential treatment.

The statement from the Chief Executive Officer should be addressed to:

and mailed by registered, return-receipt-requested mail within seven (7) calendar days of receipt of this Notice.

Failure by your firm to submit a written request that information be treated as confidential, either at the completion of the inspection or by the Chief Executive Officer within the seven-day period, will be treated by EPA as a waiver by your company of any claims for confidentiality regarding the inspection data.

To be completed by facility official receiving this notice

I have received and read this Notice.

Name

Title

Signature

Date

If there is no one on the premises of the facility who is authorized to make business confidentiality claims for the firm, a copy of this Notice and other inspection materials will be sent to the company's chief executive officer. If there is another company official who should also receive this information, please designate below.

Name

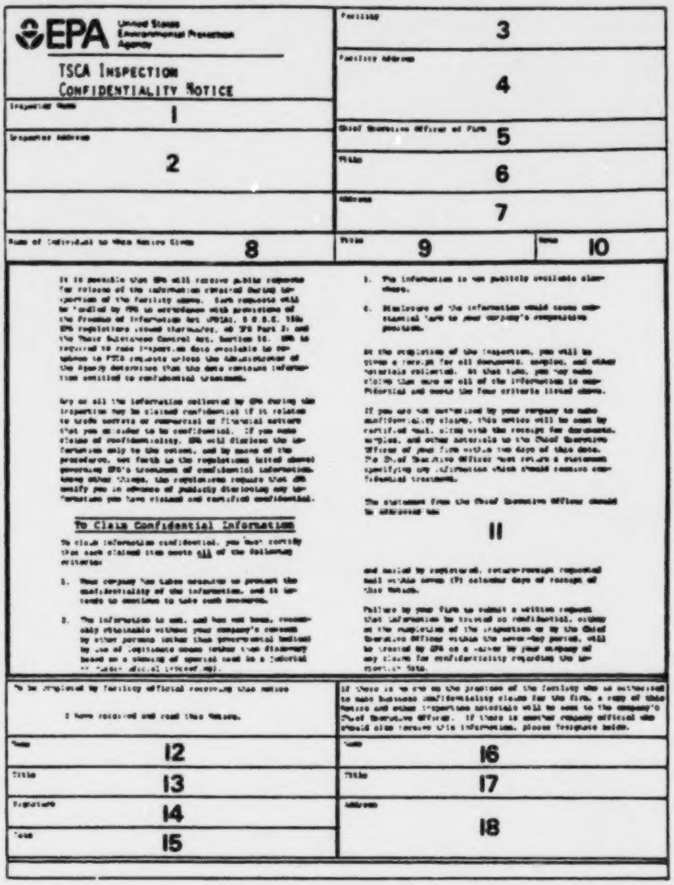
Title

Address

TSCA Inspection Confidentiality Notice

Reproduced from best available copy.

1. Enter Inspector's name (1) and EPA office address (2)
2. Enter the complete, official name of the facility being inspected (3) and its complete street address (4).
5. Enter the name (5), title (6), and complete address (7) of the chief executive officer of the firm.
8. Enter the name (8) and title (9) of the person receiving the Notice.
10. Enter the date of the Notice.
11. Enter the complete address of the Regional Document Control Officer authorized to receive the statement from the chief executive officer.
12. Enter the name (12) and title (13) of the person receiving the Notice. Have this person sign (14) and date (15) the Notice.
16. Enter the name (16), title (17), and complete address (18) of the company official who, in addition to the chief executive officer, should receive a copy of the Notice.



EPA United States Environmental Protection Agency

TSCA INSPECTION CONFIDENTIALITY NOTICE

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To Claim Confidential Information

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CHAPTER 12

RECORDS REVIEW

All of EPA's statutes and regulations include provisions requiring regulated facilities to maintain records of various kinds. In addition, facility files contain many other types of records that may be useful in ascertaining the facility's compliance with other types of provisions. Examination of records is a key part of many EPA inspections. Inspecting records for compliance purposes is an art. No set of instructions can prepare inspectors for the variety of records and recordkeeping systems they are likely to encounter. The investigative skills involved in using records to determine compliance are also not easily conveyed; these skills are largely developed through experience.

The purpose of this chapter is to provide some basic information about conducting a records review. Section 12A contains procedures for identifying documents that are copied to assure that they can be easily authenticated if entered as evidence in legal proceedings and special procedures for handling confidential data. Records Sampling Strategies (12B) explains sampling techniques that can be used to select an appropriate portion of records to be reviewed for a given inspection purpose.

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12A RECORDS INSPECTION

While conducting effective records inspections is an important investigative skill for EPA inspectors, it is an art that is developed largely through experience and practice. This is due to the variety and complexity of records requirements, types of recordkeeping systems, and ways in which records can be used to identify and document compliance problems.

As for all other aspects of an inspection, inspectors must be familiar with the records requirements and related inspection procedures of the particular program for which the inspection is being conducted. This section discusses the considerations involved in conducting records inspections under any program and the procedures for documenting for evidence purposes the information collected and/or copies of records obtained during the inspection.

Legal Aspects of Records Inspection

Authority

Each statute contains language concerning inspection of records. Some allow removal of records, while others allow only copying or recording. Inspectors must know the specific provisions of the statute under which the inspection is to be conducted. However, absence of statutory authority to remove records can be overcome when the inspection is conducted pursuant to a warrant that specifically authorizes the removal.

The procedures in the remainder of this section pertain to inspections where only copying is provided by a statute.

Records as Evidence

Records can include tapes, phone messages, printed manuals, guidance from EPA, business records, photographs, etc. It is important to the admissibility of records as evidence that the inspector document enough information to demonstrate the records' authorship, location, and distribution.

The Rules of Evidence define the basis for introducing records as evidence. Records are "statements" of the defendants and admissible under Rule 801(d)(2). They also are admissible as business records under Rule 803(6). Finally, the absence of records is important, and that fact is admissible under Rule 803(7).

Objectives

The basic purpose for inspecting facility records is to determine compliance with environmental requirements. The primary objectives of records inspection are:

- To determine whether records required by statute or regulation are being adequately maintained.
- To use facility records as a means of substantiating compliance (or noncompliance) with other requirements.

Types of Records

The inspector may need to examine the following types of records:

- Annual reports
- Production records
- Shipping records
- Inventory records
- Sales records (invoices, receiving records, etc.)
- Process records
- Quality control records
- Disposal records
- Labels and literature
- Permits -- State, local, and Federal
- Correspondence
- Exemptions
- Personnel records
- Self-monitoring records
- Operation and maintenance records.

Information Retrieval Systems. Inspectors will encounter many electronic and visual systems for storing information needed for an inspection. Computers, microfilm, microfiche, and other systems will not pose retrieval problems if the inspector has carefully established inspection objectives and knows the type of information he or she is looking for.

Review Considerations

When reviewing records, inspectors should enter into the field logbook the kinds of records examined, and the reasons for examining them. Particular attention should be paid to the quality of information being reviewed. When reviewing records, the following questions should be kept in mind:

- Is the information complete?
- What are alternative sources for the same information?
- Has the facility made an honest attempt to meet recordkeeping requirements?

In addition, inspectors should look at records in terms of the following general considerations:

- Compare current reports with field data or past reports for possible discrepancies or too much consistency which may suggest false reports.
- Check for completeness, accuracy, and quality of required records and reports.
- Ascertain compliance with record retention requirements.
- Compare information contained in the records with first-hand observations.

Guidelines for inspecting records under each program are covered in program-specific materials.

Targeting and Locating Records

The specific inspection objectives will help determine exactly what records and/or information the inspector will need to examine. In this process, the inspector should:

- List the kinds of records needed for compliance, and their retention requirements. (Refer to the program-specific procedures and to the related regulations for guidance.)
- Become familiar with the firm's recordkeeping system. (A field report entry about the system may help with future inspections.)
- Establish priorities for the material to be reviewed.
- Request that records personnel point out pertinent files and sources.
- Check back-up systems and cross-filing systems which may make retrieval more efficient.

There is often more than one route to the information needed for an inspection. Different firms may organize data in different ways. Inspectors should be aware of alternative approaches to data retrieval. For example, a firm may consider disposal records to be a subcategory of its shipping or transportation file system.

Distribution of Records

As discussed in Chapter 8, it is important for the inspector to gather as many facts which evidence the distribution of a record in a company, i.e., who saw it and when. These facts could include concurrences, location of copies of the document in more than one location, or other documents which make reference to the document in question. These facts can be essential when attempting to establish the knowledge or intent of any individuals, either personally or on behalf of the company, in cases where these elements are relevant.

Copying Records

Records and files may be stored in a variety of information retrieval systems, including written or printed materials, computer or electronic systems, or visual systems such as microfilm and microfiche.

When copies of records are necessary for an inspection report, storage and retrieval methods must be taken into consideration:

- Written or printed records can generally be photocopied on-site. Portable photocopy machines may be available to inspectors through the Regional office. When necessary, however, inspectors are authorized to pay a facility a "reasonable" price for the use of facility copying equipment.
    - At a minimum, all copies made for or by the inspector should be initialed and dated for identification purposes. (See Identification details below.)
    - When photocopying is impossible or impracticable, close-up photographs may be taken to provide suitable copies.
- Computer or electronic records may require the generation of "hard" copies for inspection purposes.
    - Arrangements should be made during the opening conference, if possible, for these copies.
    - Photographs of computer screens may possibly provide adequate copies of records if other means are impossible.
- Visual systems (microfilm, microfiche) usually have photocopying capacity built into the viewing machine which can be used to generate copies.
    - Photographs of the viewing screen may provide adequate copies if "hard" copies cannot be generated.

Identification Procedures

Immediate and adequate identification of records reviewed is essential to ensure the ability to identify records throughout the Agency custody process and to ensure their admissibility in court. When inspectors are called to testify in court, it is imperative that they be able to positively identify each particular document and state its source and the reason for its collection.

Initial, date, number, and write in the facility's name on each record, and log these items in the field logbook.

- Initialing/Dating. Each inspector should develop a unique system for initialing (or coding) and dating records and copies of records so that he can easily verify their validity. This can be done by initialing each document in a similar position, or by another method, at the time of collection. Only the copy should be initialed, not the original document. All record identification notations should be made on the back of the document.

  The inspector must be able to positively identify that he so marked the document.

- Numbering. Each document or set of documents substantiating a suspected violation or violations should be assigned an identifying number unique to that document. The number should be recorded on each document and in the field logbook.

- Logging. Documents obtained during the inspection should be entered in the field logbook by a logging or coding system. The system should include the identifying number, date, and other relevant information:

  - The source of the record (i.e., type of file, individual who supplied record).

  - The physical location of the record (i.e., address of the facility, building number, room number).

  - The manner of collection (i.e., photocopy, other arrangements).

General Considerations for Handling Records

- Return originals to the proper personnel or to their correct location.

- Keep related records grouped together.

- Confidential business records should be handled according to the special confidential provisions discussed below.

- All copies of records are to be delivered to the case proceedings file after completion of the inspection.

- All records are to be kept under lock when not in actual use by the inspector.

Confidentiality Considerations and Procedures

During the examination of records, inspectors may view or copy documents that are considered confidential by the company. It is recommended that such documents be avoided unless they are essential to the completion of the inspection.

Preliminary Indications of Confidentiality

Under ideal circumstances, a facility official will accompany the inspector and make preliminary indications of the business information considered confidential.

Such information should not be entered into field logbooks; a non-confidential reference should be made to the information, and the information should be placed either in a separate field logbook or on separate sheets which are then to be considered documents. When the facility official is unwilling or unable to make such preliminary indications, the inspector must exercise judgment in deciding which information should not be entered into the regular field logbook.

Manual Copying of Records

Only that information essential to the inspection should be copied manually from facility records. If it is known or suspected that a business confidentiality claim might be made, either place the data in a separate field logbook marked "confidential claim" or on a separate sheet of paper which then becomes a document. The separate sheet can be listed on the Receipt for Samples (and Documents).

Photocopying Documents

If only some information is needed from facility records to be photocopied, it is suggested that potentially confidential portions not necessary to the inspection be shielded.

To ensure that such shielded copies will be admissible as evidence if needed, the inspector should obtain the signature of the facility official on the back of the photocopy under a statement which reads:

> "I hereby acknowledge that this is a photocopy of a page from our (kind of record). A portion of the page was shielded and not photocopied at the company's request."

Facility Official Signature

Date

For long documents, one statement listing the relevant pages may be substituted.

Identification of Confidential Documents

Each page of each document copied either manually or by photocopy should be stamped "Confidential Business Information" or "Trade Secret" as soon as confidentiality is claimed.

Security Measures

Follow the security measures for confidential information as discussed in Chapters 16B and 17D, and/or the special procedures for TSCA Confidential Business Information as detailed in the TSCA Base Inspection Manual.

12B RECORDS SAMPLING STRATEGIES

Sampling techniques are commonly used as a systematic means of assessing compliance when there is a large population of documents or items subject to regulatory requirements. Reviewing a selected portion will identify individual violations as well as provide an overall indicator of the extent of compliance. If the inspector observes many violations or a particular pattern of noncompliance, this may suggest the need for more extensive examination and/or other follow-up. If no noncompliance is found in the sample, the inspector can reasonably conclude that the facility is in compliance.

The ability to develop and carry out appropriate records sampling strategies is a basic skill needed by all inspectors. The purpose of the material in this section is to provide inspectors with a foundation in the basic principles and techniques for sample design and selection, and the documentation that should be kept in the field logbook about the sampling methods used.

Applying the principles and approaches described here to select a portion of items to sample should allow reasonable conclusions about the facility's compliance to be drawn, in circumstances when all records, equipment, or events cannot be reviewed, investigated, or analyzed by the inspector.

Material in this section was adapted from the "Environmental Auditing Skills and Techniques Workbook" prepared by Arthur D. Little, Inc., for the Edison Electric Institute.

This section addresses only those techniques and principles an inspector could and should use in selecting the number and specific items (e.g., individual records, equipment, circumstances or events) to review, analyze, or investigate when these items are too numerous for the inspector to examine all of them.

The term sampling as used here should not be confused with the physical sampling that environmental inspectors perform on emissions, effluent, and waste streams when carrying out certain types of inspections. Physical sampling methods are well established in program guidance. For these activities, policy decisions often have already been made on the desired level of accuracy, and on the cost and benefits of different levels of sampling and methods. Program-specific sampling methods should be followed and take precedence. In other situations, judgment may suffice. However, in most circumstances the inspector must be familiar with and follow to the extent possible the basic principles and methods of statistical sampling.

Basic Steps in Sampling

The six basic steps below are designated to help ensure that each sample selected is both appropriate and defensible:

1. From the inspection plan (or on-site, if unanticipated), determine the objective of the particular inspection step -- What is the inspector trying to determine and what needs to be reviewed to make the determination?
2. Identify the population under review -- What is the population of records, equipment, employees, waste streams, etc., to be reviewed, and are any segments of that population particularly relevant to the inspection?
3. Determine the sample method to be employed -- Will it be a judgmental or probabilistic sample? If probabilistic, what type?
4. Determine the sample size -- How many items will be reviewed?
5. Conduct sampling -- What tests will be preformed on the sample chosen for review?
6. Document the sample, strategy, and methodology employed -- What is the rationale behind selecting the sampling strategy, method, and size?

Each of these steps is described in detail below.

Step 1: Determine Objective of Inspection Step

The first step in the sampling process is determining the objective to be met by the inspection step, that is, what particular aspect of a regulatory requirement is to be reviewed? An example of an objective would be: "To determine that the facility is performing the required inspections of PCB equipment." While this type of determination may appear to be obvious, it helps the inspector identify clearly the boundaries of the population under review.

Step 2: Identify Population for Review

The next step is to identify the actual population of records, equipment, documents, etc. under review. For example, when the objective of the protocol step is to verify that air pollution control equipment is maintained regularly or periodically, the inspector should first identify the number of pieces of equipment involved. Likewise, when verifying the existence of a hazardous waste training program, the first step is to identify all employees who potentially should have been trained. Frequently, the size of the population can be estimated based upon review of selected documents, a facility walk-through, and interviews with facility personnel.

As the population is being identified, pay careful attention to whether there are any major subsets or key segments of the population that need to be included in the review. For example, when identifying the population of employees to be included in the annual hazardous waste training, pay attention to new hires, temporary employees, and personnel on different shifts. Defining these subsets or segments enhances the selection of the most appropriate sample method.

Since the results and conclusions reached will be based only on what has been sampled, it is critical to define the population before starting to sample. An incorrectly defined population will adversely affect the results. Even the most rigorous and effective sampling approach may result in improper or inaccurate conclusions if the population was not defined correctly. For example, a common mistake would be to approach the review of a facility's hazardous waste training program by intuitively defining the population as "all those employees for whom training records exist."

Determine the Sampling Frame

After the population is identified, the next task is to determine the sampling frame of interest -- that is, will the sampling frame be the entire population of employees, or only a particular segment (e.g., new employees)? If a particular segment is chosen, will the sampling frame be the entire subset or only selected aspects of the subset (e.g., hourly employees)? The frame of interest is selected largely based on the professional judgment of the inspector, the purpose of the inspection, or the priorities of the program.

Identifying Potential Bias

The final task in Step 2 is to identify if there is any potential bias in the sampling frame that has been selected. The following questions should be considered:

- Were there any limits placed on the inspector in selecting the sampling frame?
- From what records or other information was the population under review identified?
- Are other data missing that would influence the sampling frame selection?

While it may be difficult to answer these questions based on the information available, the inspector should recognize the potential for bias to be introduced in the sampling process.

Step 3: Select Sampling Method

When should sampling techniques be used?

- When the entire universe of events, actions, records, waste streams, etc., will not be inspected;
- When program guidance does not otherwise dictate the methods to be used to select the number and specific items to be sampled; and
- When information is not available which offers clear judgments to be made on the most likely items to explore to find violations.

The choices among judgmental sampling and alternative sampling methods are described more fully below.

Judgmental Sampling

Judgmental sampling is frequently used when the inspector has reason to suspect that a violation or violations may occur. Sampling is directed to the segments of the population where problems or deficiencies are likely to exist. For example, the inspector may have learned during the opening conference that in the previous three months there had been a turnover of personnel responsible for maintaining air pollution control and monitoring equipment. Based on this information, the inspector might decide to focus sampling activities on those three months.

In short, judgmental sampling is used most effectively in situations where the inspector suspects a problem. It is important to note, however, that a judgmental sample cannot be used to draw compliance conclusions about the whole population. It may, however, provide the inspector with an indication of whether proceeding further with probabilistic sampling is needed to ascertain compliance with requirements. For example, if recently hired, temporary employees have been adequately trained, this suggests that the facility has a good training program; the inspector decides to check no further.

Alternative Sampling Methods

Probabilistic sampling is the most commonly used sampling method. In probabilistic sampling, data are selected in an organized, methodical manner to represent the population that is being reviewed. There are several different methods of statistical sampling; each is described below.

- Random Sampling. Random sampling is the most widely used statistical sampling method. In this method, all items in a population have an equal chance of being selected; the objective is to select items purely by chance. This method may be preferred when the objective of the review is to obtain evidence representative of the total population.

  There are two basic ways to gather a random sample. An inspector may pull records or items at random, without prejudice. Or the inspector can number the documents, records, or items within the population and then use a random number table to determine which are to be reviewed. (See Exhibit 12-1 for an explanation and an example of a random number table.) When reviewing manifests, for example, the manifest number may serve as the numbering system. Thus, if done properly, the whole population has an equal chance of being selected.

  When using random sampling, it is important that the inspector use a random starting point in his or her review of records, equipment, etc., to ensure an equal probability that any given sample will be drawn.

- Block Sampling. In block sampling, the objective is to draw conclusions about the population by examining certain segments or clusters of data that have been selected at random. Block sampling is often used when the population is so large that random sampling would produce too many subjects for review.

For example, the inspector wishes to verify that a facility was following its waste analysis plan and finds that the facility analyzes 500 waste samples each week. The inspector also learns that laboratory staff are well-qualified and each has at least three years of experience. Based on this information, the inspector feels comfortable about staff capabilities and concludes that drawing a random sample to verify conformance with the waste analysis plan would be inefficient and cumbersome. Instead, the inspector drew a block sample of waste analyzed by selecting all samples analyzed on Mondays and Fridays during the second and fourth weeks of January, March, June, September and December. Note that this method would have been inappropriate if the inspector had learned that there were significant differences in segments of population, e.g., the laboratory supervisor is not present during Saturday analyses, or an unusually large number of samples were analyzed in a particular month.

- Stratification Sampling. Stratification sampling is somewhat similar to block sampling in design. The objective of stratification is to arrange items by important categories or subsets, such as day-shift versus night-shift employees or high versus low effluent volumes. Stratification sampling allows the inspector to categorize populations by groups. Each group may be reviewed for comparison purposes, or one or more groups can be tested if the inspection's purpose is served by focusing on key segments of the population under review. For example, an air inspector may learn that, although a plant operates 24 hours a day, the highest volume of activity occurs during the second shift. The inspector might decide to evaluate compliance with permit limitations by focusing mainly on the monitoring information gathered during the second shift. This approach would not have been appropriate, however, if the activities of the unit occurred or were spaced evenly throughout the day.

  Stratified random sampling is useful when the inspector observes wide variations in size or characteristics of the population. Stratification has an inherent bias in that the inspector focuses on only a select segment(s) of the population. However, depending on the size of the sample, it may provide information on each group tested.

  In some situations, an inspector may wish to develop a stratified judgment sample if he or she suspects that a certain segment of a population requires investigation or identifies a potential problem in the population under review. For example, the inspector might suspect that training programs for second-shift employees are insufficient because of higher production volumes and many new hires. In this case, the inspector might select second-shift employees as the sample group for testing of training programs.

- Interval Sampling. The purpose of interval sampling -- also known as systematic sampling -- is to select samples at various intervals (e.g., every tenth item is reviewed). As in random sampling, each item must have an equal chance of being selected. Thus, the first item in interval sampling must be picked at random. A common way to determine sampling intervals is to divide the total population size by the desired sample size.

For example, the inspector may be determining the facility's compliance with requirements for weekly RCRA self-inspections. The inspector decides to select a sample of ten weekly reports for a 52-week review period. To develop an interval sample, the inspector decides to review every fifth report and uses a random number table to determine the random start. If the starting point selected was the second week, then the inspector would select the self-inspection report for the second week and the self-inspection reports for every fifth week thereafter.

In interval sampling, it is important to know the size of the population (see Step 2) and the appropriate interval to avoid obtaining too small -- or too large -- a sample.

- If an interval sample begins to look like it is too large, the inspector should not end the interval sampling as soon as the desired number of items has been reviewed. If ended early, the sample would represent only the first part of the total population; thus, the inspector uses the original interval to draw the entire sample, and then reduces the sample by selecting an interval or random number of the items for exclusion from the sample.

- Alternatively, the inspector can stop once it becomes obvious that the sample will be too large, and select a different interval more appropriate to the desired sample size. The new interval must then be used for the entire selection.

- If the sample turned out to be smaller than the desired number, it can be enlarged by obtaining another interval sample with a new random start. However, to draw reasonably confident and reliable conclusions about a population, several intervals with different random starts should be developed.

Step 4: Determine Sample Size

Sample sizes can be determined either statistically or based on the inspector's judgment. While a statistically based sample with high confidence levels is ideal for enforcement, it is not always feasible. For taking physical samples, in particular, there may be practical limitations on the number of samples that can be collected. As noted earlier, program priorities and evidentiary needs dictate sampling decisions in the field.

In the absence of such program-specific guidance, determining an appropriate sample size is dependent upon the population characteristics and specific inspection objectives. In all cases, the sample should be adequate enough to be representative of the total population.

A suggested scheme of determining minimum sample size is presented below. It is excerpted from Military Standard 105D and is commonly used for conducting inspections. It is intended to provide the reader with a starting place for developing samples that can be used to draw reasonably confident and reliable inferences about a population.

DETERMINATION OF MINIMUM SAMPLE SIZE

Population Size	Sample Size
2-8	3
9-15	5
16-25	8
26-50	13
51-90	20
91-150	32
151-280	50
281-500	80
501-1200	200
1201-3200	315
3201-10,000	500

Reference: Military Standard 105D, "Sampling Procedures and Tables for Inspection by Attributes," April 1963.

Step 5: Conduct Sampling

The inspector is now ready to conduct sampling. The inspector should be alert to any possible bias entering the sampling process. Independent records should be used wherever possible to develop the sample, and records for sampling should be selected by the inspector, not facility personnel. For example, if the inspector is verifying hazardous waste training and obtains training records from the training officer, the records may show those employees who have been trained. The inspector should, therefore, obtain a complete list of all employees (e.g., from personnel or payroll records) and select a sample from those independent records rather than from the records that verify only that training was given.

The time frame within which the sample was obtained is also important to sample representatives. For example, if the period under review was January 1, 1987 to January 1, 1988, the records selected for sampling should encompass some portions of the entire review period, and not, say, those for December 1987 only.

The more closely the sample represents the entire population as well as the entire review time frame, the more representative the sample becomes.

Step 6: Document Sampling Strategy

The final step in the sampling process is documenting in the field logbook the inspector's rationale for selecting the sample and how the sample was selected. The following can serve as a checklist for information that should be included in the field logbook:

- The objective of the inspection
- The population, subject, or topic under review
- How and why that population was selected
- The type of sampling method employed
- The reasons why that sampling method was used
- Any potential bias in the sample selected
- The sample size and reasons for selecting that sample size
- How the sample was representative
- How the sample was actually selected
- The results of the sampling (unless physical samples that require laboratory analysis)

EXHIBIT 12-1

RANDOM NUMBER TABLE

104	150	015	020	816	916	691	141	625	362	209	995	912	907	223
465	255	853	309	891	279	534	939	340	526	191	396	995	241	483
225	972	763	648	151	248	493	320	306	196	633	586	421	930	062
616	078	163	394	535	713	570	008	749	977	163	375	399	818	166
061	917	604	815	496	606	141	069	012	546	779	069	110	427	277
534	186	706	906	150	219	818	443	428	995	729	564	699	988	310
711	187	440	488	632	210	106	129	963	919	054	079	188	209	945
568	690	600	184	849	425	323	895	143	636	102	174	181	577	843
253	125	586	449	053	569	854	368	533	539	530	595	388	623	081
179	164	114	185	649	289	695	882	332	709	799	568	058	901	315
015	855	916	781	635	409	482	034	496	694	186	726	321	208	122
905	337	903	094	939	526	927	889	334	363	176	900	082	841	271
306	749	103	611	875	856	482	522	676	933	015	263	851	202	299
898	071	973	710	081	772	139	475	810	977	859	293	744	285	907
510	197	518	512	774	163	607	921	494	539	709	639	756	407	023
213	524	602	893	198	553	448	011	652	648	449	059	551	010	540
333	949	312	041	185	298	715	850	511	019	927	649	521	539	463
585	232	145	831	987	234	643	947	177	351	357	070	976	337	099
426	066	769	136	518	461	889	195	256	581	486	912	858	143	091
301	902	047	591	221	304	616	999	328	541	584	224	741	470	253
764	263	581	066	215	132	969	445	226	323	055	242	133	380	943
287	358	069	170	641	182	228	293	270	876	873	587	002	458	153
465	411	103	076	361	185	024	330	288	073	197	924	609	612	500
676	325	866	507	949	132	168	741	920	246	366	007	228	021	516
072	765	972	859	212	003	304	038	946	894	415	175	273	639	415
491	822	241	990	478	810	649	662	804	657	832	341	132	305	977
358	919	001	509	986	384	878	946	397	574	675	776	443	112	711
110	605	064	287	378	079	987	985	271	312	806	444	978	704	954
145	507	354	590	875	481	029	009	481	047	212	208	929	902	124
250	011	386	281	680	109	100	542	064	508	654	793	558	106	218
724	779	565	559	873	696	451	003	257	008	968	306	476	231	395
569	206	217	517	331	726	326	415	761	915	211	362	278	739	206
378	638	710	847	524	223	780	174	961	183	709	669	997	724	011
421	113	207	543	969	700	232	654	596	996	947	114	181	813	804
906	325	020	851	885	478	002	825	720	157	438	998	104	769	259
035	215	834	439	907	229	442	240	655	857	558	388	593	137	351
013	395	762	224	832	322	795	290	041	162	153	128	662	383	224
733	887	094	825	052	926	826	270	325	170	276	982	638	119	346
880	561	349	570	239	258	400	670	122	027	148	232	350	997	375
116	355	851	099	963	059	979	283	141	008	807	704	756	767	887
378	401	590	333	266	622	699	761	508	438	866	709	793	938	281
192	687	695	889	496	467	633	566	004	733	914	152	069	570	541
176	008	643	607	889	610	997	306	264	115	443	347	603	609	719
602	635	711	056	438	382	261	321	634	354	571	109	073	346	836
851	643	291	443	144	552	787	341	303	484	513	095	259	276	112
652	528	508	222	055	995	737	857	292	703	602	133	198	428	082
432	470	426	456	000	206	146	499	945	563	596	091	380	290	443
457	707	056	490	269	574	992	241	746	756	286	392	528	627	726
980	672	727	018	134	146	876	897	139	778	691	700	354	345	154
813	387	354	948	755	006	977	966	864	964	864	344	964	354	.413

EXHIBIT 12-1 (Continued)

USING A RANDOM NUMBER TABLE

(Note that many hand calculators with statitstical capability can generate random numbers.)

- Using a random number table, first pick a random place to start. This can be done by pointing blindly at the chart and beginning where the finger ends up, by tossing dice for the row and column, or other similar approach.
- Start in any direction from the point of entry on the table. Read up, down, or sideways, but maintain the same system throughout the process.
- If a sample from numbers 0-9 is required, only one column of numbers needs to be read. If numbers go from 1-10, read two digits, ignoring 00 and numbers from 11-99. Pick as many numbers as needed. If a sample of 4 items out of 10 is needed, keep reading until 4 numbers from 1-10 are found.

EXAMPLE

- A sample of 5 out of a population of 20 is needed, starting with 1.
- The sampler's pointed finger lands at column 7, row 17 -- so that is the starting point.
- The sampler chose to read down the chart using the first two digits:

715 -- 71 is too large
643 -- 64 is too large

024 -- number 02 is selected
168 -- number 16 is selected

029 -- number 02 was already selected
100 -- number 10 is selected

146 -- number 14 is selected

Now the sampler reads the next two columns over:
691 141 -- number 11 is selected

The sample of 5 is: 2, 10, 11, 14, and 16

CHAPTER 13

PHYSICAL SAMPLING

Physical sampling plays a fundamental role in EPA's enforcement effort. The term physical sampling as used here means collecting tangible, physical samples of soil, water, air, waste streams, or other materials. Many enforcement actions are supported by the results of taking, recording, and analyzing physical samples and the measurements of physical conditions that are taken in association with sample correction.

Physical samples confirm the presence and concentration of contaminants or pollutants; they can also indicate the operating conditions of key processes or equipment at a facility. In enforcement efforts, sampling results are used for two principle purposes: (1) as evidence to substantiate suspected violations; and (2) to determine the extent of environmental contamination, such as might be needed to calculate an appropriate penalty amount.

There are three basic types of sampling:

- Container sampling (e.g., samples drawn from tanks or drums)
- Environmental sampling (e.g., soil, water, air)
- Biological sampling (e.g., plants, fish)

This chapter is not intended to teach inspectors how to sample. Rather, the purpose of this chapter is to provide inspectors with a basic understanding of the principles and procedures involved in sampling for evidence purposes. It provides only an overview of the considerations involved in collecting representative samples of high quality. Specialized training on sampling procedures will be addressed through program-specific training.

Not all EPA inspectors actually conduct physical sampling. However, they are likely at some point to request others (such as staff from the Environmental Services Divisions or contractors) to conduct sampling inspections, will need to use the results of sampling inspections in their work, and/or will review the results of sampling conducted by the regulated community. Consequently, inspectors should be familiar with what goes into planning for and conducting a quality sampling effort. This knowledge will help inspectors:

- Communicate sampling needs effectively, particularly with regard to establishing sampling objectives and data quality requirements.
- Make realistic projections of the costs and time required for carrying out sampling and obtaining the results, and
- Consider data quality limitations when interpreting and using sampling data.

Each potential sampling situation involves many decisions, starting with the first decision that a sample is or is not needed. Whenever sampling is undertaken, additional decisions are made to assure that the following three key elements of a good sampling effort are addressed:

- Well-articulated objectives, and plans to meet them. The first step in a sampling effort is establishing its objectives, including decisions regarding the quality of data that is required to meet the objectives. To provide the Agency with data that accurately reflects the relevant conditions present at a site or facility, a comprehensive sampling and sample analysis plan must be developed for every inspection.

- Observance of policy and procedures. Specific policies and procedures have been developed to ensure efficient and effective sampling evidence gathering. These procedures -- which encompass the many detailed components of sampling and documentation procedures -- are designed to help ensure that evidence generated by inspectors will be admissible and credible in court, balancing this need with practical and cost considerations. Inspectors are expected to follow these procedures.

- Established context and relevance to the regulations and site conditions. In compliance inspections, the principal purpose of physical sampling is to determine if a site or facility is in compliance with requirements specified by the Agency's regulatory programs. While the collection of samples of materials may be an integral component of an inspection, associated measurements of physical conditions (e.g., wind, temperature, pH) at the site and the analysis of the samples are equally important. Without both quantitative analytical data and qualitative descriptions to support the physical samples collected at the site, the results obtained from a sampling inspection will be of little practical value.

Note: As used in this text, the term "physical sampling" is defined broadly to include measurements of physical conditions such as temperature, wind conditions, and pH which are also often taken in a sample collection effort.

13A: POLICY CONSIDERATIONS IN SAMPLING

Planning and conducting an inspection involves decisions regarding whether physical samples are needed and, if so, how the sampling should be carried out. The policy considerations involved in sampling focus largely on the question of whether physical samples are needed in a given inspection situation. Once a decision is made to take samples, other policy questions meld with technical issues and must be resolved before sampling begins. Such policy/technical issues, covered in subsequent sections of this chapter, include establishing the objectives of the sampling and assuring that the data collected will be of the quality and representativeness needed to meet these objectives.

This section addresses the questions of why and when to sample.

Samples as Evidence

The physical samples taken during a compliance inspection or investigation are often the key evidence substantiating that a violation occurred (or demonstrating that the facility is in compliance).

Depending on the regulation involved, samples may be needed to show:

- That a particular regulation applied to the site or facility (e.g., that a drum contained PCBs and therefore should have been marked with a PCB label);
- That a permit standard has been exceeded (e.g., that a waste stream has a higher concentration of pollutants than allowed by the permit); or
- The extent of a contamination problem (e.g., that contamination has seeped from the soil under a leaking tank to the ground water).

In order for the results of physical samples to be readily accepted as evidence in court, the samples must be of known quality, collected following sound technical procedures, and representative of conditions at the location where they were collected.

Program-Specific Guidance on Sampling Decisions

As noted earlier, not all inspections involve collecting physical samples. Guidance established by each EPA regulatory program provides general direction on when to sample at a site. Inspection protocols for the various types of inspections prescribe specific activities (records review, interviews, observations, and/or physical sampling) that should be conducted in order to assess and document compliance.

Some types of inspections, such as routine sampling inspections, by definition involve collection of physical samples. Other types of inspections might involve collection of samples only if a violation is suspected that would need to be substantiated by sample results. The amount of certainty that samples are to be collected will affect, of course, the degree to which detailed advance planning can be done.

Exhibit 13-1 on pages 13-6 through 13-8 is a summary of the types of routine inspections for each EPA program, indicating the dominant inspection activities for each type.

Inspections that are not routine, such as case development inspections or inspections scheduled on the basis of a tip, may or may not involve sampling. The decision to sample would be made on a case-by-case basis.

Sampling Decisions in the Field

The wide variety of field situations that will be encountered make it virtually impossible to specify in advance in all cases whether samples should or should not be taken. The final judgment must be made by the inspector in the field.

As noted throughout this text, inspectors should become familiar with the priorities assigned to various types of violations in the penalty and enforcement response policies of their programs. This knowledge will assist them in determining sampling and other documentation needs. The guidelines below set out the general principles for sampling and priorities for the types of situations in which sampling should be undertaken.

General Guidelines for Sampling

1. Take a sample whenever one is needed to prove a violation.

   This would mean taking a sample of any material that needs to be verified as containing the substance(s).

   Examples: To show that a release should have been reported to EPA under CERCLA, there must be proof that a substance subject to CERCLA was involved.

   To show that a transformer should have borne a PCB label, there must be proof that it actually contains PCBs at the regulated concentration.

   To show that an industrial discharger is exceeding the permit limit for a parameter, there must be proof that the discharge actually contains the constituent above the permitted amount.

2. Sample only when there is reason to suspect the substance is present.

   Unless there is some reason to believe that the regulated substance at issue is present, there is little likelihood of finding it through indiscriminate sampling.

   Example: If there is no independent reason (e.g., a statement by a facility employee) to suspect that the several stacks of drums that are observed contain hazardous waste, there is no reason to assume that they do.

   On many inspections, a very large number of samples would have to be taken, resulting in an unduly long inspection and unreasonable backlog of samples to analyze. Further, it may be logistically impossible to collect and transport that many samples. Thus, there is a third rule.

3. Always attempt to verify the presence of the substance by a means other than sampling.

The most common sources of independent verification of the presence of the substance are the company's records, nameplate or label information, and statement by facility personnel (which may or may not be correct). Other sources include obtaining information on raw materials, process operations and waste streams. Such sources may be contested, but experience to data indicates that usually they are not. Thus, sampling may become less important when there is other evidence of the presence of the substance (or an amount in excess of a limit) although there is always the potential that records and/or labels are erroneous or falsified.

Examples: A company's self-monitoring reports show levels in excess of the permit limit for a given constituent or constituents.

A nameplate on a transformer states that it contains PCBs.

A facility employee states that waste oil is placed in the indicated drums.

These general rules would assure the best case preparation in all instances, but they are sometimes impractical to observe.

EXHIBIT 13-1

DOMINANT ACTIVITIES IN ROUTINE INSPECTIONS BY PROGRAM

PROGRAM/TYPE INSPECTION	RECORDS REVIEW	INTERVIEW	OBSERVATION	PHYSICAL SAMPLING
TSCA				
PCBs	R	R	R	O
Asbestos (AHERA)	R	R	R	O
Section 8	R	R	R	O
Section 5	R	R	R	O
Section 4	R	R	R	O
Good Laboratory Practices	R	R	R	N/A
FIFRA				
Compliance Evaluation (Product establishment or marketplace) for:				
Cancelled or Suspended Products	R	R	R	O
Labeling	R	R	R	O
Recordkeeping	R	R	R	N/A
Illegal Pesticide Disposal	R	R	R	O
Use/Misuse Inspections	R	R	R	O
Good Laboratory Practices	R	R	R	N/A
Experimental Use Permits	R	R	R	O
Some State Oversight Program Audit	R	R	R	N/A
SARA TITLE III				
Section 313	R	R	R	N/A

R=Required (R* means only cursory review) O=Optional N/A=Not Applicable October 1988

EXHIBIT 13-1 (Continued)

DOMINANT ACTIVITIES IN ROUTINE INSPECTIONS BY PROGRAM

PROGRAM/TYPE INSPECTION	RECORDS REVIEW	INTERVIEW	OBSERVATION	PHYSICAL SAMPLING
RCRA				
Compliance Evaluation	R	R	R	O
Case Development	R	R	R	R
Comprehensive Groundwater Monitoring Evaluation	R	R	R	R
Operation & Maintenance	R	R	R	O
Lab Audits	R	R	R	O
St. Oversight Insp	N/A	N/A	N/A	N/A
CWA-NPDES				
Compliance Evaluation	R	R*	R	N/A
Compliance Sampling	R	R*	R	R
Toxic Sampling	R	R*	R	R
Compliance Biomonitoring	R*	R*	R	R
Performance Audit	R	R	R	N/A
Diagnostic	R*	R	R	O
Pretreatment Compliance	R	R*	R*	O
Reconnaissance	R*	R*	R*	N/A
Legal Support	R	R	R	O
CWA §404				
Preliminary Investigation (General site visit to establish jurisdiction)	R	O	R	O
Case Development (Detailed site evaluation as part of formal enforcement action)	R	O	R	O
Compliance Monitoring (Ensuring Compliance with administratively or judicially ordered mitigation/restoration plan)	R	O	R	O

R=Required (R* means only cursory review)   O=Optional   N/A=Not Applicable

EXHIBIT 13-1 (Continued)

DOMINANT ACTIVITIES IN ROUTINE INSPECTIONS BY PROGRAM

PROGRAM/TYPE INSPECTION	RECORDS REVIEW	INTERVIEW	OBSERVATION	PHYSICAL SAMPLING
PWSS				
Sanitary Survey Compliance Evaluation (Routine & for cause)	R	R	R	O
Compliance Oversight	R	R	N/A	N/A
UIC				
Emergency Inspection	O	O	R	O
Class IV Closure Verification	R	O	R	O
Citizen Complaint Investigation (Priority 1)	O	R	R	O
Mechanical Integrity Test Witnessing	R	O	R	O
Enforcement Inspection (Compliance Evaluation)	R	O	R	O
Preoperational	R	O	R	N/A
Plugging and Abandonment Verification	R	O	R	N/A
Compliance Verification (Compliance Oversight)	R	O	R	O
MOBILE AIR				
Retail Outlet (Fuel switching/nozzle)	O	R	R	R
Repair Facility (Tampering)	R	R	O	N/A
Fleet Operator (Tampering/Fue; switching)	R	R	O	O
Refiner/Importer (Phasedown/banking)	R	O	N/A	N/A
STATIONARY AIR	—	—	—	—

R=Required (R* means only cursory review) O=Optional N/A=Not Applicable October 1988

13B: TECHNICAL CONSIDERATIONS IN SAMPLING

Several technical issues must be considered to assure that the sampling data collected on an inspection will be of a quality sufficient for the Agency to draw a proper conclusion about the compliance status of a facility and will be viewed as credible evidence substantiating the Agency's position should an enforcement action be pursued. This is the fundamental objective of any sampling carried out for compliance and enforcement purposes.

While this objective is relatively straightforward, meeting the objective involves many decision and actions regarding how samples will be collected and analyzed. These include such decisions as determining:

- The number, location, and type of samples and/or measurements that will be taken;
- The specific techniques that will be used to collect the samples;
- The volume of samples that will be collected; and
- How the samples will be managed in the field (e.g., sample preservation, packing and shipping).

As a means for ensuring that each sampling effort goes through a careful thought process before it is undertaken, the Agency has instituted a policy of requiring that a Quality Assurance Project Plan (QAPP) be prepared in advance. This planning activity is designed to make sure that each sampling collection and analysis effort will meet its intended objectives.

This section discusses key technical considerations and choices that are made in preparing for and conducting a sampling inspection. Many of these choices are reflected in the Quality Assurance Project Plan that is prepared in advance of the inspection. Other choices can only be made in the field, once actual site conditions or potential compliance problems are known.

In addition to providing guidance on technical questions associated with sampling inspections, this section will therefore also serve as a foundation for the more detailed discussion of the Agency's quality assurance policy and the preparation of a Quality Assurance Project Plan in Chapter 13C.

Data Quality to Meet Sampling Objectives

Precision and accuracy are the data quality measures of representative field samples. Precision refers to the variability of the measurement process when the same sample is measured more than once, and accuracy refers to the closeness of an observed measurement value to its true value. (See fuller discussion of quality assurance and quality control in Chapter 13C.) If the resulting data is to meet the objectives established for the sample collection effort, precision and accuracy must be maintained in both the field and at the laboratory.

In many cases, precision and accuracy are dependent on the type of procedure or equipment that is chosen. Often, the procedure or equipment that provides the greatest precision and accuracy is the most complex or expensive to use. Great care must be taken when weighing the objectives of the inspection against the cost of the inspection. It is important to understand what level of precision and accuracy will meet the objectives of the QAPP. In many cases, this is specified in the SOPs used by the Agency. The inspector should select the appropriate SOP, equipment, or method that will satisfy the objectives. The sample objectives can be met by employing a variety of methods in an inspection.

When the data resulting from the sampling becomes available, it is crucial that it be possible to assess its quality and utility in meeting the sampling objectives. To enable this assessment to occur, certain information about the data should be documented. Normally, this information would be contained in a Quality Assurance Project Plan or similar planning document that is prepared for projects involving collection of environmental data.

Preparation of the required planning document is discussed in detail in Chapter 13C. The discussion which follows here presents an overview of data quality considerations and technical decisions that are involved in designing and conducting a sample collection effort to assure that the resulting data meets the objectives of the effort.

The information essential to the assessment process can be divided into three major groupings:

- Objective(s) of the data collection activity;
- Field measurement and sampling process; and
- Laboratory analytical methodology.

Objective(s) of the Data Collection Activity

A fundamental step in setting the objective(s) of a sample collection effort is clearly establishing the ultimate use of the data that will result. This step provides the foundation for designing the sampling plan and a means by which to compare and assess the results.

The objective may be as simple as determining if a groundwater sample obtained from a monitoring well exceeds an established concentration limit for a specific contaminant or constituent. It may be as complex as determining the spatial and areal extent of contamination in soil of specific constituents or contaminants resulting from disposal practices at a site. Clear objectives for the specific site or facility involved must be defined in order to determine the amount and type of environmental data needed (e.g., determination of compliance status of the facility, detection of a release of a contaminant into the environment via a specific media, etc.).

The objective should serve as the basis for the design of the sampling plan (sampling locations, sampling frequency, types of sample to be collected, parameters to be analyzed for, etc.) to obtain the data. The sampling plan may be specified by regulation or a regulatory agency (e.g., contained in an administrative order or permit), or it may have to be developed for specific activities or sites (e.g., establishment of a monitoring well network to detect any releases of contaminants from a surface impoundment at a specific site).

Field Measurement and Sampling Process

This information includes the detailed procedures for collecting and handling samples, performing field measurements, and documenting the sampling process. (See Chapter 13D.)

Laboratory Analytical Methodology

For data assessment to be performed, the actual analytical methods used for analyzing samples for specific constituents or groups of constituents must be known. (See Chapter 13D.)

Standard Operating Procedures (SOPs)

Over the years, EPA has developed a series of SOPs for sampling in a variety of environmental media and conditions. Such SOPs are contained in program-specific inspection guidance and other guidance documents. In some cases, SOPs are contained in regulation. Relevant procedures are contained in program-specific materials.

SOPs should be followed carefully. Not only does a deviation from a SOP create a potential weakness in EPA's case, but the integrity of the SOP itself can be undermined. SOPs have been used successfully in litigation; courts generally defer to EPA's standard procedures when challenged by an opponent. Procedures established through regulation have an even greater standing.

Since sampling techniques and procedures vary substantially by EPA program and environmental medium, a full examination of sampling methods used by EPA inspectors is beyond the scope of this text. Inspectors will receive extensive training on the sampling techniques employed in their programs as part of their program-specific training.

Chapter 13E contains a list of protocols (SOPs) from each of the programs that can be used as a guide to methodologies currently available for sample collection.

Tailoring

Since each situation is unique, the appropriate SOPs are tailored to fit the requirements of individual locations. The SOPs are used as guidance for developing the site-specific QAPPs for each sampling effort; many QAPPs simply reference the relevant SOPs that will be employed. In some cases, a generic QAPP for a particular type of inspection might be prepared that serves as the QAPP for all inspections of that type.

Deviations from the SOPs

The SOPs should be followed carefully. However, circumstances may be encountered in the field that make it physically impossible to follow an SOP exactly. Such situations might include physical restrictions on access to a sampling point or danger to the inspector. There might be problems with equipment, perhaps due to temperature or wind conditions, or breakage of a container of the specified size.

A need to deviate from the SOP does not necessarily mean that the sampling will be deemed invalid, but any deviations from the SOP must be documented and the steps taken fully explained.

Selection of Representative Sampling Points

Proper sampling procedures require the selection of sampling points that will produce a representative sample. A representative sample is any sample which is similar to the total population in composition and physical and chemical properties. Selection of a sample that is truly representative of the material or media being sampled provides the strongest foundation for demonstrating either compliance or the existence of a violation. If a sample can be shown to be representative, conclusions about the compliance status of the rest of the population may also be drawn.

Inspectors should follow program- and media-specific guidance for collecting representative samples, particularly for specified sampling sites.

In all cases, the sampling objectives are meant to determine how and where representative samples should be collected. Representative sampling plans can be designed to reflect likely violations, normal operating conditions, maximum normal operating conditions, or average conditions at a site or facility. The inspector must be able to modify the sampling plan to collect representative samples based on operating conditions observed in the field. As always, modifying or adapting the sampling plan should not compromise the sampling objectives.

Representative samples are usually considered to be a snapshot in time of operations at a site or a facility, and can reflect conditions ranging from worst case to average. If the sampling objectives are to characterize worst case conditions at a site or facility, the QAPP allows for the collection of representative samples that reflect worst case conditions. For example, if a manufacturing facility is exceeding its NPDES discharge permit standards on a regular basis, one of the sampling objectives for an inspection at this site could be to collect evidence to document this violation. Accordingly, a QAPP would be designed to collect samples that are representative of the times that the facility exceeds its permit standards.

There are a wide variety of factors that define a representative sample. These factors include:

- Operating conditions
- Types of waste
- Statistical considerations
- Temporal considerations
- Spatial considerations.

Operating conditions can be variable, ranging from seasonal to peak and off-peak conditions. Normal operating conditions are those which are consistently maintained over time with little variability. For samples to be considered representative of the operating conditions at a site or facility, they must reflect the variability, if any, present in facility operations. Ambient conditions, such as wind, rain, snowfall, or freezing temperatures, can also affect operating conditions at a site facility.

Contaminant type can affect how a representative sample is to be collected. For example, the procedures for collecting a representative sample from a stack of drums is different from collecting a sample from a landfill or lagoon. A representative sample of contaminants collected at a facility has to reflect any variability in the types of contaminants generated.

Statistical considerations that affect representative sampling include variability, frequency, and quantity of contaminant. Variability in the samples can occur from changes in the manufacturing, schedule, peak and off-peak production, uneven distribution of contaminants in the waste, and seasonal changes.

Waste generation frequency and sampling frequency can determine if a sample is truly representative. If waste is generated or discharged on a routine or regular basis, samples can be collected over time that reflect any variability in manufacturing and treatment operations. If a waste is generated or discharged on an irregular basis, it might be difficult to collect representative samples over time.

The quantity of waste generated can impact on the collection of a representative sample. If a sludge is generated from a filter press at the rate of five cubic yards per week into a hopper, it would not be a difficult procedure to collect a sufficient number of samples from the press and the hopper to be representative of the waste. However, if the sludge has been discharged into a twenty-acre landfill, collecting a sufficient number of samples to be representative of the waste in the landfill would be a much more labor-intensive procedure.

Temporal conditions or variability over time can occur for a variety of reasons including:

- Process changes
  - Segregation of specialized operations
  - Addition or removal of operations (i.e., plating, etc.)
- Schedule changes
  - Change from an 8-hour day to 24-hour operations
- Manufacturing changes (product change)
  - Job shop operations (i.e., continuously variable product line)
  - Addition of new product lines
- Raw material changes as a result of altering
  - Suppliers
  - Expenditures due to variable cost
  - Product line
- Management practices
  - Offloading of other wastes into an impoundment or disposal site
- System aberrations
  - Variations in treatment process (e.g., pH fluctuations)
  - General system breakdown

Seasonal changes in manufacturing demands, as well as weather changes, can have a direct impact on waste generation and must be considered when collecting representative samples. Further considerations include the time of day the sample is collected and the length of time the sample is collected. Waste generated during start-up operations early in the morning, especially at the first of the week or after a holiday, may be different from the waste generated at the end of the day or week, depending on work shifts and cycles.

The length of time needed to collect a representative waste sample depends on waste generation variability. A grab sample collected during a manufacturing cycle may or may not be representative of the waste. A series of group samples collected over a period of time may be needed to generate a representative sample of the waste.

Spatial variability can occur in both a horizontal and vertical direction. Variability in the horizontal direction can result from the use of a single discharge point, the movement of a single discharge point, or from the use of multiple discharge points into an impoundment, a landfill, or body of water. In most cases, there could be an uneven horizontal distribution of waste or sludge with the greatest concentration occurring near the discharge point. This uneven horizontal distribution can result from: heavier particles settling out of the liquid phase first; man-made obstructions, such as weirs or barriers within an impoundment; sloped sides which allow for greater sludge accumulation in the center of the impoundment; and the use of natural structures such as quarries which, depending on the topography of the impoundment site, allow for uneven sludge accumulation on the bottom of an impoundment.

Variability in the vertical direction is affected by changes in the waste over time as well as the accumulation of the heaviest particles of waste near the discharge point. These two factors can produce layers of waste within an impoundment or landfill of varying concentration. In these cases, the collection of representative samples must be done in such a way as to ensure that data are collected from all parts of the sample area.

Determining Number of Samples

There are a variety of factors that should be considered when determining how many samples should be collected at a site or facility. The technical factors that affect sample collection include the variability of the waste and the degree of certainty desired to identify the contaminants in the waste. If the manufacturing or treatment process that generates the waste is highly variable, the contaminant concentrations in the waste may also be variable. As such, a greater number of samples may need to be collected to account for the variability. In addition, the number of samples should provide a statistical degree of certainty that the sample population is representative of the total population. Too few samples would not be statistically valid while too many would be statistically redundant. The appropriate level of confidence should be determined on a program-specific basis.

The logistical management of the samples is another consideration that directly affects how many samples should be collected at a site or facility. The number of samples that can be safely collected, stored, packaged and shipped with the resources available to the inspector will often determine how many to collect at a site.

There are certain legal factors involved in sample collection that directly affect how many samples should be collected. These factors include the nature of the program requirements and the degree of controversy. It is advisable to resolve any disagreements with the program staff prior to entering the field to avoid delays and additional costs.

The cost of the sampling, both in time and resources, is something that the inspector should be aware of constantly. The optimal QAPP allows for a sufficient number of samples to be collected to adequately characterize a site or facility and meet the sampling objectives. Once again, the inspector and the laboratory should plan before the inspector ever enters the field. Given that many of the analyses are very expensive and time-consuming, they should be requested from the laboratory judiciously. However, while a well-designed sampling plan provides an optimal number of samples, cost requirements should not prohibit necessary sampling at a site or facility.

If the objective of the inspection is to determine whether contamination is present at a site or facility, numerous samples from literally ever section of the site can be collected and analyzed for every possible contaminant. Although this would satisfy the sampling objectives, it would seriously deplete the available time and resources designated for the laboratory, as well as raise serious questions about the inspector's judgment. A more appropriate procedure might be to screen the facility and perform a detailed sample in specific areas identified by the screening analysis.

The need to collect representative samples can directly impact the number and volume of samples. Representative sampling is dependent on a number of conditions including operating and temporal, as well as the optimal waste distribution. For some cases, a minimum number of samples can be considered representative, while for other sites a much larger number is necessary. Other factors to consider are regulatory considerations including how to balance 7 day, 30 day, and 1 year limitations against what is practical to do.

Required Sample Volumes

The volume of samples obtained should be sufficient to perform all required analyses with an additional amount collected to provide for quality control needs, split samples, or repeat examinations. The volume should be kept to a minimum, particularly if sampling is from hazardous waste sites or sources which are known to be toxic.

The sample volume required for each analysis is the volume of the standard container less the ullage (empty space) required for safe shipment of samples to the laboratory, and sample mixing in the laboratory. Inspectors should allow a minimum 10 percent ullage in every sample container for this purpose. The only exceptions are samples collected for purgeable volatile organic analysis (VOA), total organic halogen analysis (TOX), or dissolved gases such as sulfides; for such samples, containers must be completely filled.

The specific volume of sample required by laboratories depends on the analyses to be performed. Inspectors should refer to program- and media-specific sampling guidance and consult with the laboratory receiving the sample for any specific volume requirements.

Quality Assurance/Quality Control Samples

The inspector may be requested to take samples or sufficient sample volumes to allow for use in QA/QC checks of the sampling itself as well as for checks of the laboratory equipment and precision techniques. A request for collection of these samples may come from the laboratory or from an EPA office with responsibility for overseeing QA/QC activities. In some cases, routine procedures have been established regarding collection of QA/QC samples (see Quality Assurance Project Plan in Chapter 13C).

The types of samples used for QA/QC purposes are summarized below:

- Replicate Samples. These are separate samples taken from the same source at the same time. These provide a check of the sampling and precision techniques, and the laboratory equipment.

- Split Sample. This is a sample that has been divided into two containers for analysis by separate laboratories. A split sample aids in identifying discrepancies in the laboratory's analytical techniques and procedures. (Note: Facility officials have the right to receive a split of any physical sample collected for laboratory analysis.)

- Spiked Sample. This is a sample to which a known quantity of the analyte(s) of interest has been added. This provides a proficiency check for accuracy of the analytical procedures.

- Field Blanks. This is a sample of lab pure water to which the same quantity of preservative is added as is added to the unknowns. This provides a check on the contamination of chemical preservatives and containers.

Selection and Preparation of Sampling Equipment

Inspectors must be aware of the equipment available to them through the Regional Office, and making arrangements for the use of this equipment is part of the planning process. In many cases, choices need to be made regarding the type of sampling that will be conducted at a site or facility based on equipment availability at the Regional Office. Other factors to consider include the accuracy and reliability of the equipment that could be used and the type of material to be sampled. Choices should be made based on the required level of precision and accuracy, availability, and cost.

The type of equipment needed will vary with each inspection. A wide variety of supplies and equipment will routinely be needed including sample containers and collection equipment. The instrumentation should be calibrated both in the office or laboratory and then again in the field. All sampling equipment and containers must be properly pre-cleaned before use.

Preventing Cross-Contamination

Preventing cross-contamination, both on-site and between sites is the responsibility of the inspector. Great care should be taken to avoid contamination of samples collected at a site or facility. In addition, all sampling equipment should be cleaned before use to avoid contamination of samples from previous sampling efforts.

While basic sampling procedures and techniques are designed to help prevent contamination, some compounds can be detected in the parts-per-billion or parts-per-trillion range. The existence of these minute trace amounts can ruin the validity of samples through cross-contamination. Once collected, samples should be handled as infrequently as possible. Personnel should use extreme care to ensure that samples are not contaminated. When trace contaminants are of concern the following precautions are good practice for all samples:

- Sample collection activities should proceed progressively from the least contaminated area to the most contaminated area (if this fact is known).
- A clean pair of new, disposable gloves (non-powdered for metals) should be worn each time a different location is sampled.
- Sample containers for source samples or samples suspected of containing high concentrations of contaminants should be placed in separate plastic bags immediately after collecting, preserving, tagging, etc.
- If possible, ambient samples and source samples should be collected by different teams.
    - If separate collection is not possible, all ambient samples should be collected first and placed in separate ice chests or shipping containers.
    - Samples of waste or highly contaminated samples should not be placed in the same ice chest as environmental samples.
    - It is good practice to enclose waste or highly contaminated samples in a plastic bag before placing them in ice chests.
    - Ice chests or shipping containers for source samples or samples suspected of containing high concentrations of contaminants should be lined with new, clean, plastic bags.
- If possible, one member of the field team should take all the notes, fill out tags, etc., while the other member does all of the sampling.
- When sampling surface water, the water sample should always be collected before the sediment sample is collected.

Equipment Decontamination and Waste Disposal

Decontamination of sampling devices in the field may in some cases produce a rinsate that is or may be regulated under RCRA. In addition, some types of disposable sampling devices and protective clothing are routinely contaminated with regulated materials. EPA inspectors are generally advised to properly package contaminated equipment and take it back to the Regional Office (or laboratory) for proper decontamination and/or disposal in accordance with appropriate regulations. However, several laboratories are now requesting that when hazardous materials are collected, arrangement be made with the facility before sampling to return the excess sample to the site for disposal. In several cases, laboratories have refused to conduct analysis because they have no way of disposing of the sampled material (e.g., pentachlorophenol).

With the consent of the facility, contaminated disposal equipment or wastes can be disposed of on-site if compliance with all applicable requirements is evident. Disposal on-site is generally discouraged due to potential liabilities, unless some special arrangement has been made.

Inspectors should follow the policy and procedures of their particular organizations with regard to equipment decontamination and waste disposal. The summary below was adapted from procedures used by the National Enforcement Investigations Center (NEIC).

Decontamination of Sampling Devices

- Whenever possible, use disposable sampling devices when sampling hazardous waste.
  - Once contaminated, these devices are sealed in heavy-duty plastic bags at the field site and brought back to EPA for disposal.
  - Glass thieves used to sample drummed liquid hazardous waste may normally be broken and placed in the sampled drum at the field site.
- Nonexpendable sampling devices may require decontamination at the field site before reuse, normally requiring aqueous or solvent washing and rinsing.
  - Rinsate (including detergent) from aqueous washing devices used to take environmental samples (e.g., soil or natural waters) is normally left at the field site.
  - Aqueous or solvent rinsate resulting from decontamination of devices used to sample known or suspected regulated materials are recovered, containerized, and returned to EPA for disposal.
  - If the facility is a listed generator and has appropriate disposal capabilities, contaminated sampling devices and rinsate can be left at the facility with the facility's permission.

Decontamination of Protective Clothing

- Where necessary, contaminated disposable protective clothing is sealed in heavy-duty plastic bags and returned to EPA for disposal.
- Nondisposable protective gear is either returned to EPA or decontaminated on-site.
  - Decontamination on-site generally consists of washing with small amounts of water and detergent; rinsate from such washing may be left on-site.
  - If nondisposable protective gear cannot be decontaminated by washing with minimal amounts of water and detergent, place it in a plastic bag and return it to EPA.

Split Samples: Special Considerations

Split samples are samples that have been divided into two portions for analysis by separate laboratories. A replicated or split sample can be divided into portions (or split) at different points in the sampling and analysis process in order to obtain precision information on the various components of the measurement system. For example, field replicated or field split samples provide the precision information about all the steps taken after samples have been acquired, and include the sample homogeneity, the effects of storage, shipment, sample preparation, analysis, and data reduction. A sample divided into two portions just prior to analysis, i.e., an analysis replicate, provides information on the precision of the analytical instrumentation.

In some cases, the sampled facility may request splits of all samples that are collected during an inspection. In other cases, providing split samples on request may be required by law. This issue should be addressed by the inspector during the planning stage of the sampling inspection. The facility and the inspector should agree during the opening conference on the logistics of providing split samples, including who will supply the equipment for collection and containers for the facility splits. Sampling protocols need to be established to avoid discrepancies in the data analysis, particularly if the sampled facility is not properly equipped to collect or manage split samples. If the facility provides sample containers that are not pre-cleaned or otherwise identical to those used by the inspector, discrepancies could occur. At no time should providing the sample splits compromise or interfere with the sampling objectives.

The risks associated with splitting the samples involve generating non-representative splits that do not reflect the contaminant population in the waste or waste stream. There is also the possibility of destroying the sample and negating the sampling effort. If protocols are not established for the sampling and analysis, different answers may result and cast a doubt on the admissibility of the data as evidence.

Common Sampling Errors

Failure to obtain reproducible and consistent data is often a result of sampling errors made during the collection process. Common errors related to sampling that can occur in inspections include:

- Failure to calibrate instruments (e.g., pH meter, Do meter, etc.);
- Lack of maintenance on equipment;
- Lack of QA samples to assure precision;
- Forgetting equipment or supplies;
- Sample loss or leakage during shipping and transport;
- Misreading instruments;
- Miscalculations;
- Transposition of data in the field logbook;
- Mislabelling;
- Poor field notes.

13C: QUALITY ASSURANCE/QUALITY CONTROL

The previous sections of Chapter 13 discussed key policy and technical considerations involved in planning for and conducting sampling as part of compliance inspections. Many of the choices made regarding when, what, and how to sample will be reflected in the Quality Assurance Project Plan (QAPP)[1] that, in accordance with Agency policy, must be written and approved in advance of any monitoring and measurement activity.

All project personnel should be familiar with the policies and objectives outlined in the QAPP to assure proper interaction between the field operations, laboratory operations, and data management.

Quality assurance/quality control (QA/QC) is a process that should be used in all phases of the sampling inspection effort from the planning stage through the final report preparation. In order to meet the sampling objectives, QA/QC procedures should be followed throughout the effort. The objective of QA/QC is to produce data that meet the user's requirements and satisfy the sampling objectives.

The quality assurance project planning activities described here are designed to assist in generating data that are complete, precise, accurate, representative, and comparable. Following these guidelines should enable the inspector to answer the following questions:

- What data are needed for evidence?
- Does the collected data represent the activities at a site or facility?
- Has the proper data been collected?
- Can the collected data be defended?

Quality Assurance/Quality Control Policy

As a regulatory and enforcement Agency, all data generated or used by EPA must be of known, defensible, and verifiable quality. This is a matter of Agency policy, as expressed in EPA Order 5360.1, and as such, should be viewed as an integral requirement of all data gathering activities. A basic requirement which implements this Order is that a Quality Assurance Project Plan (QAPP) must be developed for each field sampling project, including sampling inspections.

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[1] The plan termed "Quality Assurance Project Plan (QAPP)" here may have a different name in some EPA offices. However, a plan containing the QA/QC features discussed in this section is required in advance for all EPA sampling efforts, including sampling as part of compliance inspections.

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Quality Control (QC) is (or should be) a normal part of good field and laboratory practice. It is the "built ins" included in methods to be sure that the data generated is the data that is desired. QC includes all of the procedures applied to data collection and generation activities in order to achieve and maintain a desired level of data quality as established by Agency and program managers.

- The desired level of data quality should be based on the intended use of the data. The QC should include all of the technical controls used, such as sampling and analytical methods; use of blanks, replicate, and duplicate samples; inclusion of performance or standard samples; and standard curves and statistics.
- Controls start with the design of the data acquisition project and carry through to the ultimate data reporting and completion of all of the documentation of the use of these controls.

Quality Assurance (QA) refers to the procedures used by management to assure that the QC is what is required and that it is being adhered to at any point on the project.

- QA constitutes the overview and monitoring processes designed to be sure that the quality of the data generated meets the desired levels as established by management.
- These controls include establishing data quality objectives based on the intended use of the data, the institution of procedures for formalizing planned documents prior to the initiation of data collection activities, and the use of audits to identify problems in QC.

The Regional Quality Assurance Management Staff (RQAMS) works with the Headquarters Quality Assurance Management Staff and program managers, field specialists, and the Office of Regional Counsel to develop program-specific QA guidance materials. These are intended to help Regional monitoring programs in developing their required site-specific quality assurance project plans.

Each Region has a quality assurance coordinator who is responsible for ensuring that Regional quality control procedures are followed and for tracking and recording the results of specific QC programs. The quality assurance coordinator operates the field analysis QC program, periodically checking the equipment logbooks, and notifying appropriate officials of any observed problems.

Concepts in Precision and Accuracy

Precision and accuracy are two of the fundamental data quality measures that comprise the measurement process. Precision refers to the repeatability of the measurement process when the same thing is measured at different times. Accuracy refers to the closeness of an observed measurement value to its true value. Given that neither the precision nor the accuracy of measured data can be ascertained from the data itself, the use of specially planned checks for which both measures can be estimated is required.

As defined by EPA's Quality Assurance Policy, the quality of data is traditionally expressed in terms of precision, accuracy, representativeness, comparability and completeness. A brief definition of these terms is included below.

- Precision -- the reproductibility of the data.
- Accuracy -- the closeness of a measured value to the true value. Two parameters that indicate data accuracy are bias and confidence levels. Bias is the difference between the average value of a set of measurements of a standard and the reference value of a standard. The confidence level is an estimate of the reliability of a sample value.
- Representativeness -- the extent to which the data characterize the environmental condition of the site or operation in question.
- Comparability -- the equivalency of the data sets.
- Completeness -- the measurement of the confidence with which the data resulting from a collection activity meets the sampling objectives.

Quality Assurance Project Plan

A Quality Assurance Project Plan (QAPP) must be prepared for each sampling inspection. This is necessary to ensure that the data collected meets and satisfies the sampling objective. However, while a QAPP needs to be prepared for every sampling effort, it can build on the established Standard Operating Procedures (SOPs) that have been prepared on a program-specific basis. While the SOP is usually too generic to be applied directly to each sampling effort, it does provide a framework for building a QAPP. Therefore, a QAPP can be very lengthy and involved, for example if applied to a complex field investigation, or it may be very abbreviated, relying upon existing procedures. However, whether it is prepared in advance, or constructed on-site, the thought process must be the same.

The purpose of preparing a QAPP is to initiate a thought process in which the inspector thinks through, in overall terms, the design of a sampling plan that will meet the sampling objectives. The QAPP must be flexible enough to allow the sampling objectives to be met despite changes and modifications that may occur in the field. However, if the QAPP is modified, all of the changes need to be documented to show that changes have not compromised the sampling objectives.

There are generally two types of QAPPs that are developed for sampling efforts. They are:

- Routine. If the Region has adopted SOPs to satisfy the required elements of the QAPP, they can generally be adopted by reference for each inspection, subject to modification as needed to accommodate any unusual circumstances.
- Non-Routine. All non-routine project plans must be peer reviewed in advance in accordance with Regional procedures. All comments from reviewers must be considered by the inspection team leader (project leader). If the document receives a nonconcurrence, appropriate changes or corrections must be made, and the plan resubmitted for peer review.

Elements of a Quality Assurance Project Plan

The format and outline used for quality assurance plans vary, but the content will generally include the items discussed below.

- Project Description and Site Location. This element documents the what, where, and why of the project being conducted. It should include some of the history and the justification for the project, and deals with the physical aspects defining the project area, space, and environmental concerns requiring the generation of data.

- Project Measurement Objectives. This states the information requirements of the project. They may be defined by regulatory specifications or may be based on enforcement needs requiring investigative procedures developed scientifically to address one particular site or type of problem. Ideally, this will be a joint decision of both the field inspector/investigator and the project manager.

- Sample Rationale and Network Design. This describes the decision process for taking samples or measurements at particular sampling points. Although such decisions (rationale) are site related, the mechanism of selecting the actual sampling points (network) is a mixture of applied statistics, regulatory requirements, enforcement needs, and common sense.

- Analyses Rationale. This is designed to help the preparer of the QAPP document the required information relevant to analytical methods. This element of the QAPP initiates the paper trail of physical accountability of the project. It is here that some of the field QC samples normally used are designated as QA samples, and so listed.

- Data Quality Objectives. This lists what elements, compounds, classes of compounds, and/or physical data are required. Tied to this is the method the planners have chosen (usually from experience, consultation with the laboratory, or because of regulatory requirement) to best generate the type of data desired and help ensure data comparability. The method listed usually spells out the detection limit, and should help define precision and accuracy for the total measurement system, or at least for the analyses specified.

  The complete information lets the planner define the actual amount of data generated, and be certain that sufficient data are acquired to satisfy the plan and its validity. It provides a built-in control to be sure that the actual samples taken are analyzed and reported, or that their loss results in a corrective action. The data quality objectives are used to ensure that the data are representative of the actual site conditions and the results should be expressed in terms or units comparable with previously collected data.

- Sample Procedures to be Used. This section keys the planner and the sampler to a clearer agreement on the positions stated in the Project Measurement Objectives and Sample Rationale and Network Design sections. It should result in a professional understanding of both technical and management special considerations.

- Sample Custody and Documentation. This is the core of the paper trail. At a minimum, this section should meet the recording and documentation requirements authorizing the specific project. It is important to remember that these procedures are designed to protect the sampler; he or she may be called upon years later to testify about the sampling.

- Calibration Procedures and Frequency. Designed mostly for physical measurements in the field and laboratory, this is generally best dealt with by use of SOPs which define calibration and standardization procedures, required frequency, and operational checks (zero and span adjustments). It is also the place to list acceptable deviations, or cite alternate approved methods. Field expedients are acceptable, provided they do not compromise data required by a regulation, are technically sound, and are completely documented.

- Preventative Maintenance. This is an extension of the above, but more concerned with the instruments used and documenting their consistent condition. This section is best satisfied if both laboratory and field instruments were covered in a SOP listing each manufacturer's operational and maintenance recommendations.

- Laboratory Data Reduction/QA Review. In this section, the planner can designate what degree of QA effort each involved element of a project requires.

- System and Performance Audits. Planners and their management may request or specify a variety of audits. The Regional quality assurance officer can provide standard QC materials for project-specific performance evaluation type audits. In-depth management system, technical system, and document system audits can be conducted at either the field, laboratory, or office level. Alternatively, an audit may be scheduled by other EPA offices interested in quality assurance.

- QA Report to Management. Normally, the Regional quality assurance management officer reviews the data packages in cooperation with laboratory staff or project managers. As a result of any audit performed, a complete report to appropriate management must be generated. In the event that corrective action is required, additional documentation of the solution sought and reached or action taken must also be generated.

- Corrective Action. Samplers have some flexibility in meeting QA/QC requirements when actually conducting field operations. If in the sampler's professional opinion, the field operation cannot be performed as described in the plan, the sampler can exercise his or her training, ability, and professional innovativeness in generating the data required. The sampler can add or subtract samples or other activities, provided that the changes and the reasons for the actions are documented. The sample must justify his or her actions later on, but if there was sufficient cause to deviate from the plan, there should be no problem with addressing the issues covered in the Corrective Action Checklist.

- Sample Alterations. The same philosophy applies as above, but is aimed more at the actual measuring or analyzing protocols used both in the field and in the laboratory. They both supply defensible reasons for deviations from a plan, and track changes in the amount of data generated for a specific plan.

- Safety Plan. This is technically a part of the QA plan, but this element can cite Regional or Agency plans acceptable to the Regional Safety Officer. Any deviation from accepted protocols must be defined in a separate Site or Project Safety Plan approved by the Regional Safety Officer.

Coordination of QAPP Preparation

During the development of the QAPP for a sampling effort, the inspector should interact with the laboratory staff, the program staff, and the attorneys. The laboratory analysts can participate in the development of the sampling plan and provide insight into the type of sampling that needs to be conducted. In addition, the laboratory analysts are a resource to be used in the data interpretation phase, particularly if data irregularities develop. Working with the program staff and the attorneys in developing the QAPP can help the inspector to understand what evidence needs to exist for sampling a site or facility.

Modifications to the QAPP

When faced with a situation during a field sampling effort that is either unexpected or unanticipated, the inspector must decide on an appropriate response. The inspector should be able to recognize the need to modify the QAPP based on conditions observed in the field. Spontaneous sampling can be appropriate if the inspector has gone through the same series of decision-making processes that went into the original QAPP. It is important to know just how far the QAPP can be modified without compromising or altering the original sample objectives. In order to do that, the following questions need to be addressed:

- Can the original objectives still be met?
- Can the sampling be satisfactorily done with the existing equipment?
- Is it safe to sample?

Whenever a QAPP has been modified or adjusted, all changes must be documented in the inspector's field notebook. Included in this documentation should be the rationale for any modifications and what course of action, if any, was taken to modify the sampling plan.

A model QAPP is presented on pages 13-27 through 13-31.

EXHIBIT 13-2

MODEL
QUALITY ASSURANCE PROJECT PLAN

Project Name:

Project Manager:

Field Operations:

QA Office Concurrence: Date:

ESD Peer Review: Date:

Project No.: Account No.:

Laboratory Designated: EPA CLP Private

Sample Numbers Assigned: from to

Sample Schedule and Milestones:

Activity/Date: / / / / / / / / /

/
/
/
/
/

Reports required:

/

Sample Management Control Center:

Date:

Project Description and Site Location:

Project Measurement Objectives (Intended use of data):

Sample Rationale and Network Derivation:

EXHIBIT 13-2 (Continued)

MODEL
QUALITY ASSURANCE PROJECT PLAN

Analyses Rationale:

# of Samples	Parameter	QA Samples	Matrix	Container	Holding Time	Preservation

Data Quality Objectives:

Parameter	Method #	Detection Limits	Precision	Accuracy	Completeness

Sample Procedures to be Used:

Sample Custody and Documentation:

Calibration Procedures and Frequency:

Preventative Maintenance:

If, for any reason, the schedules or procedures above cannot be followed, the appropriate person must complete a "Sample Alteration Checklist" for each element changed and have it (them) verified and reviewed by the Project Manager and the QA Officer/Peer Review. (See page 5)

EXHIBIT 13-2 (Continued)

MODEL
QUALITY ASSURANCE PROJECT PLAN

Laboratory Data Reduction/QA Review:

Field Data Reduction/QA`Review:

Reports (as deliverable or required):

System and Performance Audits:

Scheduled: Conducted:

Corrective Action: (IF YES, COMPLETE CORRECTIVE ACTION CHECKLIST AND/OR SAMPLE ALTERATION FORMS, Appendix B.)

QA Report to Management:

EXHIBIT 13-3

MODEL
SAMPLE ALTERATION FORM

Project Name and Number: ____________________

Material to be Sampled: ____________________

Measurement Parameter(s): ____________________

Standard Procedure for Field Collection & Laboratory Analysis (cite reference): ____________________

Reason for Change in Field Procedure or Analysis Variation: ____________________

Variation from Field or Analytical Procedure: ____________________

Special Equipment, Materials, or Personnel Required: ____________________

Initiators Name: ____________________ Date: ____________

Project Approval: ____________________ Date: ____________

Laboratory Approval: ____________________ Date: ____________

QA Officer/Reciever: ____________________ Date: ____________

Sample Control Center: ____________________ Date: ____________

EXHIBIT 13-3 (Continued)

MODEL
SAMPLE ALTERATION CHECKLIST

Project Name and Number: ______________________________

Sample Dates Involved: ______________________________

Measurement Parameter(s): ______________________________

Acceptable Data Range: ______________________________

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Problem Areas Requiring Corrective Action: ______________________________

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Measures Required to Correct Problems: ______________________________

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Means of Detecting Problems and Verifying Correction: ______________________________

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Initiators Name: ____________________ Date: ____________

Project Approval: ____________________ Date: ____________

Laboratory Approval: ____________________ Date: ____________

QA Officer/Reviewer: ____________________ Date: ____________

Sample Control Center: ____________________ Date: ____________

13D SAMPLE DOCUMENTATION

Sample documentation procedures include means of establishing both chain of custody and the precision, accuracy, and representativeness of the samples. The procedures discussed below cover the basic elements that should be a part of all sample documentation procedures. Inspectors should also become familiar with any additional or different documentation procedures for their location. The basic procedures are designed to assure that an inspector will be able to testify that a particular sample was drawn from a particular location at a particular time, describe the procedures that were used to obtain the sample, and explain how the integrity of the sample was secured.

The basic procedures are:

- Documentation of objectives and methodologies to establish precision, accuracy, and sample representativeness, including records of:
    - Field measurement and sampling process
    - Laboratory analytical methodology.
- Documentation procedures to establish chain of custody, including records of:
    - Chain of custody initiation
    - Sample identification
    - Sample seal
- Field logbook entry and other documentation approaches.

Documentation of Precision and Accuracy

Field Measurement and Sampling Process

The procedures used for collecting and handling samples and performing field measurements in the sampling process should be documented as written procedures or by citing appropriate references containing detailed sampling procedures. The procedures should be detailed enough to ascertain the:

- Exact location where each sample was collected
- Types of sample containers used for each parameter or group of parameters
- Sample container preparation process
- Sample collection process
- Sample preservation and handling
- Type and frequency of calibration and maintenance of field analytical procedures
- Calibration and maintenance of field instruments
- Identification and documentation of samples
- Custody of samples collected.

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Laboratory Analytical Methodology

The actual analytical methods used by laboratory personnel for analyzing samples for specific constituents or groups of constituents should be documented by written procedures or by citing references containing detailed descriptions of the analytical methods. The procedures should include such variables as the laboratory's sample receiving and handling procedures, all quality control procedures, data reduction and reporting procedures, and the equipment/instrument calibration and maintenance requirements to ensure the generation of reliable analytical results.

As with the documentation of sampling efforts, the analytical process needs to be documented with accurate records to substantiate the analytical data, all conclusions derived from the data, and finally, the reliability of the analytical data reported. If alternate analytical methods are used for the analysis of samples, there must be sufficient documented data available to demonstrate that the analytical data obtained by the method used are comparable to data obtained by the accepted/approved analytical method. All deviations from approved or referenced analytical methods should be approved, documented and reported to the data users.

Chain of Custody Documentation

The purpose of chain of custody procedures is to be able to trace possession of a sample from the time it was collected until it is introduced as evidence in a legal proceeding. Case proceedings personnel should be able to demonstrate that none of the samples involved have been tampered with or contaminated during collection, transit, storage, or analysis. An accurate written record should be maintained to trace the possession of each sample from the moment of collection through its introduction into evidence. For a further discussion on chain of custody as it relates to the admissibility of physical samples (and other collected materials) as evidence, please refer to Chapter 8 of this manual.

Elements of Custody

A sample is in "custody" if:

- It is in one's actual physical possession.
- It is in one's view.
- It was in one's possession and it was secured so it couldn't be tampered with.
- It is kept in a secured area with access restricted to authorized personnel only.
- It is placed in a container sealed with an Official Seal that will be broken when the container is opened.

Chain of Custody Procedures

The concept of custody requires the maintenance of several procedures to ensure the authentication of the sample. These procedures begin with the identification of the sample and continue through the laboratory analysis process.

- Establishing Custody. Sample custody is initiated at the time of collection by sealing the sample with the Official Seal.

- Preparing Sample Documentation. An important aspect of the chain of custody is the preparation and maintenance of written information describing the collection, shipment, and storage of the sample. Preparation of this documentation is the responsibility of the inspector and lab personnel. Properly maintained, this documentation will serve as a clear and complete account indicating that the sample offered into evidence was the same one which was collected.

The documentation includes, but is not limited to, the entries in the inspector's field notebook, the Official Seal, and the Chain of Custody Record.

- Coordinating sample and documentation. The inspector needs to assure that the relationship between the physical sample and the related documentation is clear, complete, and accurate. The sample number, date, and inspector's initials should appear on all documents, and the forms should be completed accurately and completely.

- Ensuring custody during transit. Shipment of samples to the laboratory should involve the following procedures:

    - Samples must be accompanied by the Chain of Custody Record. Copies of documents should be retained by the originator.

    - If sent by common carrier, a bill of lading should be obtained.

    - All receipts and shipping documents should be included in the Chain of Custody documentation.

- Confidential samples. If a sample has been declared confidential business information, the seal is marked "Confidential Business Information," and any analysis reports are also to be marked and held confidential.

It is important that the inspector deliver or ship the confidential sample to an individual in the laboratory who has been cleared for access to confidential information. Each person who handles the sample and analysis report from that point should also have confidentiality clearance.

Initiating Chain of Custody Record

Preparing the Chain of Custody Record initiates the process that controls and records access to the sample once it has left the inspector's possession. The sample number relates the sample to the Record which accompanies the sample through all the processing stages. (See Exhibits 13-4 and 13-5, pages 13-38 through 13-41.)

Field Logbook Entry

The inspector's entry in the field logbook is the principal reference for the sample. The following information should be included about each sample collected:

- Sample identification number
- Any other unique identifying marks on the container
- Date and time of collection
- Description of specific location of collection
- Collection method (should include collection equipment; field analytical equipment; all calculations, results, and calibration data for field sampling analytical, and physical measurement equipment. All sampling and field analyses must be traceable to the type of equipment used and the inspector who did the work).
- Rationale for selecting the sample and representativeness considerations
- Description of any deviations from standard protocols
- A note regarding provision to the facility of duplicate or split samples, if appropriate.

An example of a field logbook entry is included as Exhibit 13-6, pages 13-42 through 13-46.

Sample Identification

Each sample container should be tagged immediately upon collection with a standard EPA sample tag (Exhibit 13-7, page 13-47). In some cases, particularly with biological samples such as vegetation, the tag may have to be included with or wrapped around the sample.

The EPA sample tags are sequentially pre-numbered and are accountable documents after they are completed and attached to a sample or other physical evidence. If for some reason, a pre-numbered tag is unusable or tags get used out of sequence, the unused tags should be saved and a note regarding the problem made in the field logbook.

The following information is generally included on the sample tag or on the field data sheet:

- Inspection number
- Field identification of sample station number
- Date and time of sample collection
- Designation of the sample as a grab or composite
- Type of sample (water, wastewater, leachate, soil, sediment, etc.) and a very brief description of the sampling location
- The signature(s) of the sampler(s)
- Whether the sample is preserved or unpreserved
- The general types of analyses to be conducted (checked on the front of the tag)
- Any relevant comments (such as readily detectable or identifiable odor, color, or known toxic properties)
- If the sample is known or thought to be hazardous, the tag should be so marked and contain information on the nature of the hazard (e.g., corrosive, flammable, poison).

The following basic considerations govern identification of samples:

- One sample number is used for each sample. One sample consisting of several subsamples or units is assigned only one number.
- Subsamples may be sealed in a single bag if they are part of one sample and if adequate packaging protection is provided.
- Sample numbers should appear on all documentation relating to a sample: seals, Chain of Custody Record, drawings, photographs, etc.

Sample Seal

Some EPA inspectors use an official sample seal. Once the sample has been collected and tagged, its container should be placed inside a plastic bag. The inspector should first write his name or initials, and the date on the bag and then turn the bag inside out to prevent any means of tampering with its contents. The sample is placed inside the inverted bag. The bag is then taped closed in a secure manner with the Official Sample Seal (EPA Form 7500-2). The sample container or wrapper should be sealed so that it may not be opened at any point without breaking the seal and/or the original unit package. Not more than one sample should be sealed under one seal. An example of an official seal is included as Exhibit 3-8, page 13-48.

If the company declares a physical sample as confidential business information, the inspector should mark the seal "Confidential Business Information. If it becomes necessary to break a seal, it should be mounted on a piece of paper, properly initialed and dated, and submitted with sample records to provide a continuous history. The sample should be resealed with a new seal.

EXHIBIT 13-4

EPA United States Environmental Protection Agency

Chain of Custody Record

Sample Number	Task Number
Inspection Number	
Sample Name	

Inspector Name and Address

Date Sample	Time	Duplicate Requested ( ) Yes ( ) No

Inspector Signature

Location of Sampling

Analysis/Testing Required

Laboratory			
Date Received			
Received By			
Sent Via			
Sample Condition			
Condition of Seals			
Units Received			
Storage Location			
Assigned By			
Assigned To			
Delivered By			
Date Delivered			
Number of Units Received			
Units Analyzed			
Date Seal Broken			
Date Received			
Resealed By			
Storage Location			
Date Results of Analysis Issued to EPA		Date Results of Analysis Issued to Facility	

Remarks

EXHIBIT 13-4 (Continued)

Chain of Custody Record

1. Enter Inspector's name and EPA office address.

2. Sign the Chain of Custody Record.

3.-4. Sample and Inspection numbering program is currently under development. Information regarding these spaces will be provided at a later date.

5. Task numbers refer to EPA contractors. Inspectors may disregard.

6. Describe the sample, including size, container, and contents. (e.g. 8 oz. bottle of PCB transformer oil.) List brand names if any.

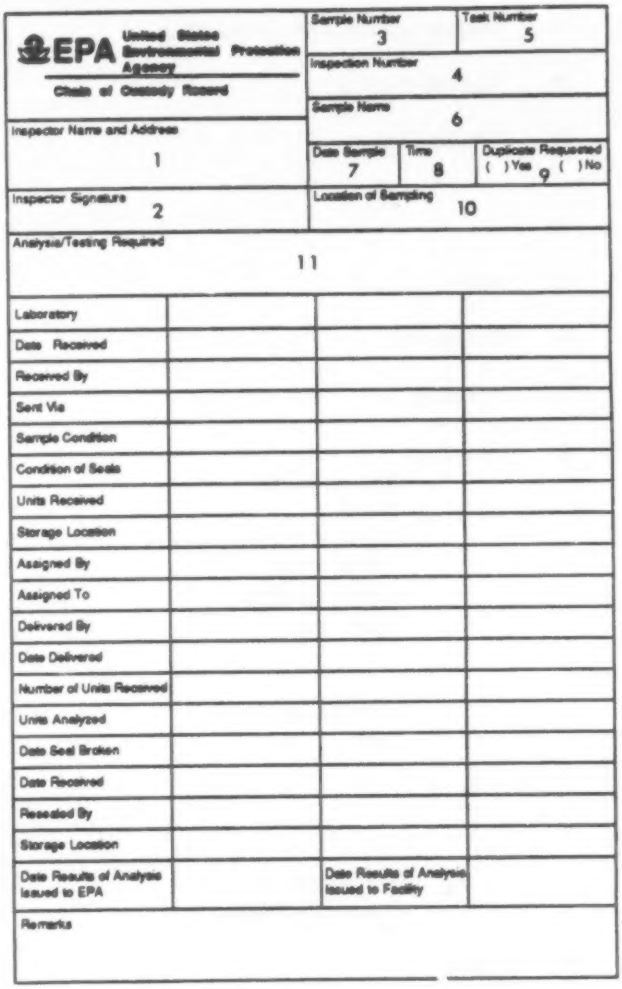
7.-8. List date (7) and time (8) sample was requested by facility officials.

9. Indicate if duplicate sample was requested by facility officials.

10. Enter name and address of firm.

11. List testing required for samples collected. (e.g. test for PCB concentration)

The remaining parts of the Record will be completed by personnel other than the inspector.



EPA United States Environmental Protection Agency

Chain of Custody Record

Sample Number 3

Task Number 5

Inspection Number 4

Sample Name 6

Inspector Name and Address 1

Date Sample 7

Time 8

Duplicate Requested ( ) Yes 9 ( ) No

Inspector Signature 2

Location of Sampling 10

Analysis/Testing Required 11

Laboratory			
Date Received			
Received By			
Sent Via			
Sample Condition			
Condition of Seals			
Units Received			
Storage Location			
Assigned By			
Assigned To			
Delivered By			
Date Delivered			
Number of Units Received			
Units Analyzed			
Date Seal Broken			
Date Received			
Resealed By			
Storage Location			
Date Results of Analysis Issued to EPA		Date Results of Analysis Issued to Facility	

Remarks

EXHIBIT 13-4 (Continued)

FIELD SAMPLE DATA AND CHAIN OF CUSTODY SHEET (FSDCOCS)

1.	Project Code & Account Number	Obtain from designated individual
2.	Name/Location	As appropriate
3.	Project Officer	Name of person who should receive lab data. Usually person collecting samples.
4.		Check appropriate box
5.	Notes	Use for comments
6.	Samplers	List names
7.	Recorder	Signature of person completing the FSDCOCS
8.	Examples	See back of FSDCOCS
	Source Code	As appropriate
	Matrix	Enter number
	Number of Containers	Obtain from Joyce Crosson before sampling
	Lab Number	Note 4 digit sequence number
	Station Number	STORET station number (if available)
	Date/Time	Military time For composite samples -- beginning -- date/time of first aliquot
	Ending Date/Time	Date/Time of last aliquot
	Type	See back of FSDCOCS T = Time -- Aliquots taken at set frequency S = Space -- Grabs over an area F = Flow -- Variable time intervals B = S&T
	Frequency	See back of FSDCOCS
	Station Description	Be specific
9.	Codes	See back of FSDCOCS
10.	CHAIN OF CUSTODY	Document POSSESSION of samples en route to Region 10 laboratory. If sent to another lab via common carrier, sign in "DISPATCHED BY" box.

EXHIBIT 13-5

EPA
EPA Region 10
1200 Sixth Avenue
Seattle WA 98101

FIELD SAMPLE DATA AND CHAIN OF CUSTODY SHEET

① Project Code: TEC-094 A Account: TFA 10 PC
② Name/Location: ABC Inc, SEATTLE
③ Project Officer: JON DOUGH

④
☐ Enforcement/Custody
☐ Possible Toxic/Hazardous
☐ Data Confidential
☐ Data for Storet

Notes: ⑤
CASE No: 1057
SAS No: 1234 J

⑥ Samplers: JON DOUGH
Second Sampletaker
⑦ Recorder: Jon Dough (Signature Required)

⑧

SOURCE CODE	MATRIX				CONTAINERS & PRESERV.			LAB NUMBER			STATION NUMBER	DATE				COMPOSITE ONLY					STATION DESCRIPTION
																ENDING DATE					
	Water	Sediment	Tissue	Oil	Unpres	H_2SO_4	HNO_3	Yr	Wk	Seq		Yr	Mo	Dy	Time	Mo	Dy	Time	Type	Freq	
	X				3	1		84	49	5150		84	12	07	0915						FIELD TRANSFER BLANK - ABC Inc
34	X				3	1	1	84	49	5151	J1596	84	12	07	0930						ABC Inc Secondary Effluent — MJ0911
49		X			1			84	49	5152	DS004601	84	12	07	1000						ABC Inc - Soil next to #5 Tank Outlet Valve
34	X				3	1		84	49	5153		84	12	07	1015	12	08	0915	T	24	ABC Inc - Secondary Effluent
71			X		1			84	49	5170		84	12	07	1315						ENGLISH SOLE - EAGLE HARBOR #12A
42		X			1			84	49	5171		84	12	07	1400						Eagle Harbor #37

⑨

LAB NUMBER			DEPTH	Units	Type	COL MTD CD	QA CODE	TEMP DEG C	pH	CNDCTVTY umho/cm	MISCELLANEOUS
Yr	Wk	Seq									
84	49	5150					FXFR				
84	49	5151				21		26	7.2		90° V Notch 8" Head
84	49	5152				10					Top 6" of soil
84	49	5153				21		20	7.4		

└ see back of sheet

CHAIN OF CUSTODY RECORD ⑩

RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)	DATE/TIME
RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)	DATE/TIME
RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)	DATE/TIME
RELINQUISHED BY: (Signature) Jon Dough	RECV'D BY MOBILE LAB FOR FIELD ANAL.: (Signature)	DATE/TIME
DISPATCHED BY: (Signature) DATE/TIME	RECEIVED FOR LAB BY: (Signature) Steve Analyst	DATE/TIME 12/7/84 1100
METHOD OF SHIPMENT Hand Carried		

Laboratory Copy White · Project Officer Copy Yellow · Field or Office Copy Pink

55

EXHIBIT 13-6

Example of Field Logbook

Pab

56

Merritt Brothers
Lumber 6/3/88

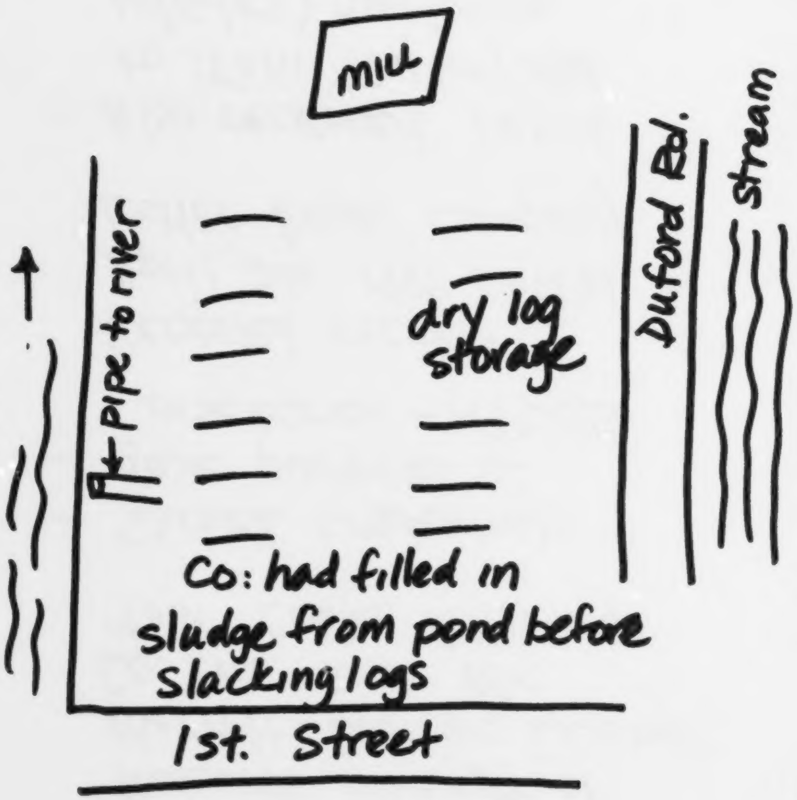
Took several photos of outfalls from pipes dumping into the ditch along the roadway. (see photos #1 through #6 with descriptions).

10:15 A.m. - met with Mr. Charles Sheroke, attorney and Mr. Tom Taylor (environmental manager)

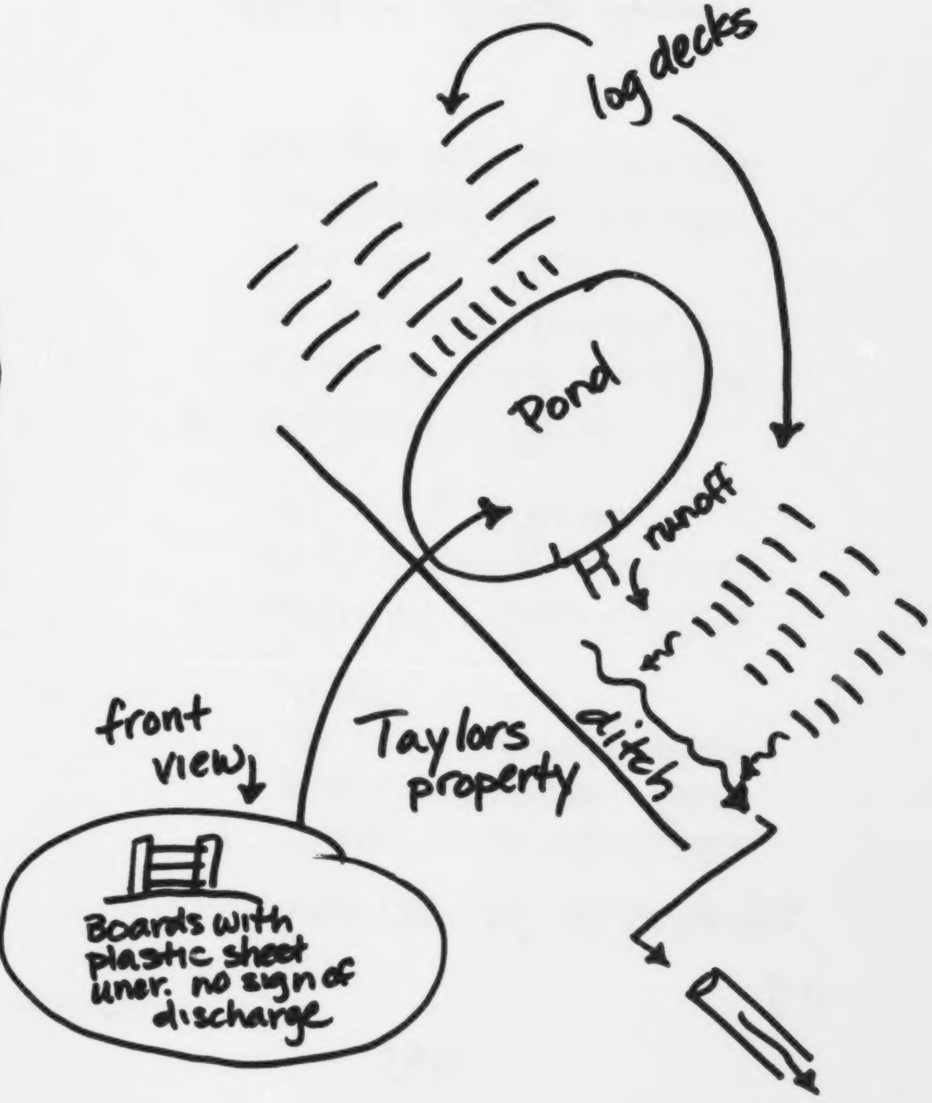
Looked at log deck area
- sprinklers are usually going from May – Oct per Tom.

EXHIBIT 13-6 (Continued)

57 Pab


MILL
Pipe to river
dry log storage
Duford Rd.
stream
Co: had filled in sludge from pond before slacking logs
1st. Street

Pab 58


log decks
Pond
runoff
ditch
Taylors property
front view
Boards with plastic sheet liner. no sign of discharge

59 Pab

EXHIBIT 13-6 (Continued)

Pab 60

- Met w/ Mr. Mike Boeck Resource manager of Merritt Brothers Lumber Co. Inc. and Mr. Tom Cooke, Attorney

- Showed credentials
- gave purpose of inspection – NPDES

- Received recent April 26, 1988 IDHW Letter from company

- Also received IDHW to Tom Taylor (dtd. 10/16/87) outlining past violations.

Sources of discharge

1. Boiler – condensate overflow tank. Can go into ditch then river
2. Saw mill - saw cooling and footing drains w/ oil & grease
3. Log Pond - Pond cleaned and hauled to county landfill. Has level float controlled makeup. No regular discharge.

Mud in ditch from

61 Pab

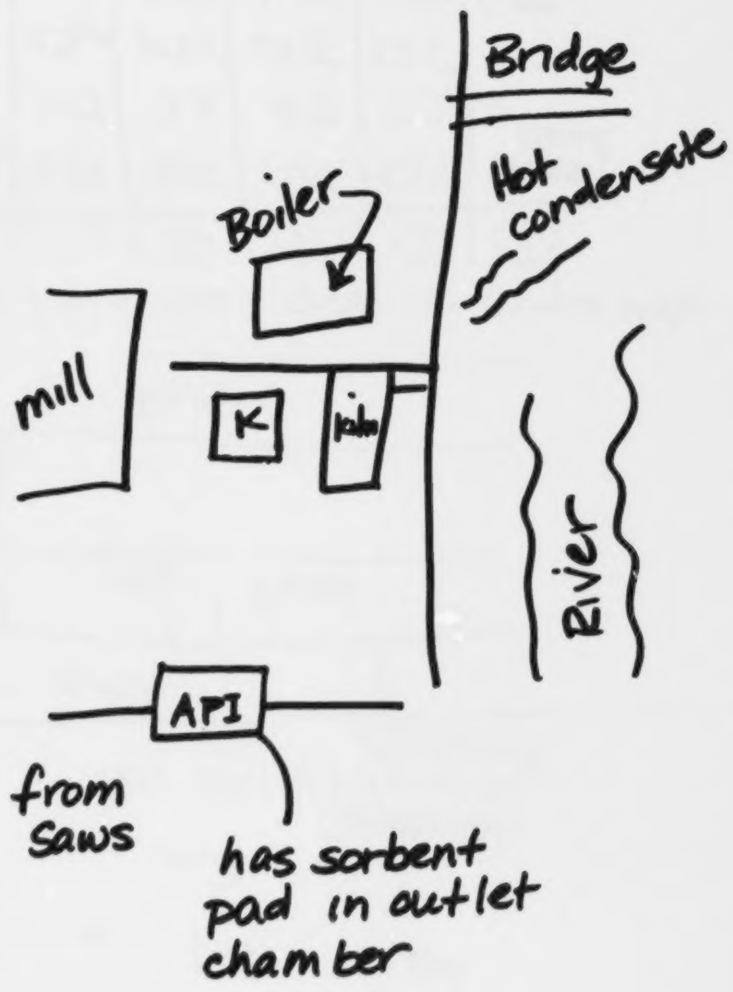
EXHIBIT 13-6 (Continued)

pond discharge came from cleaning process when spillway was open.

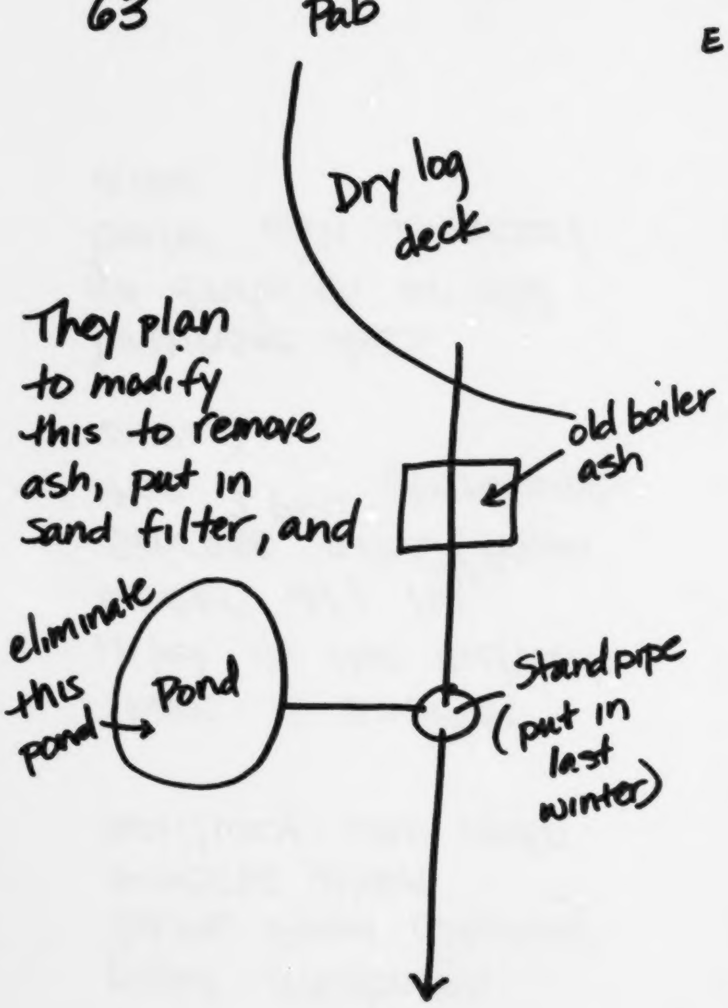
There is another inlet to the culvent under dry log storage area (from the (Pab standpipe area).

Drainage does go through an old boiler ash disposal area

Pab 62


Bridge
Hot condensate
Boiler
mill
K
kiln
River
API
from saws
has sorbent pad in outlet chamber

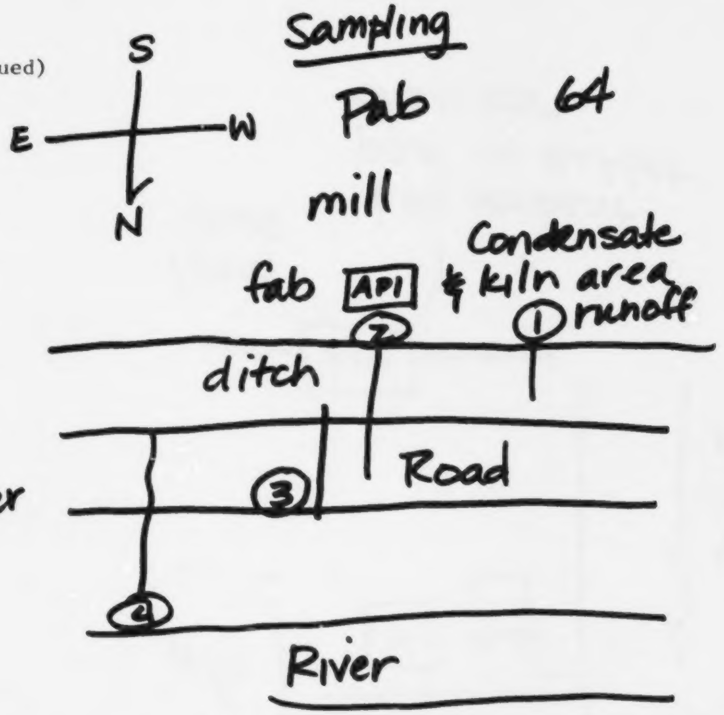
63


Pab
Dry log deck
old boiler ash
Pond
Standpipe (put in last winter)

They plan to modify this to remove ash, put in sand filter, and eliminate this pond

Sampling

64

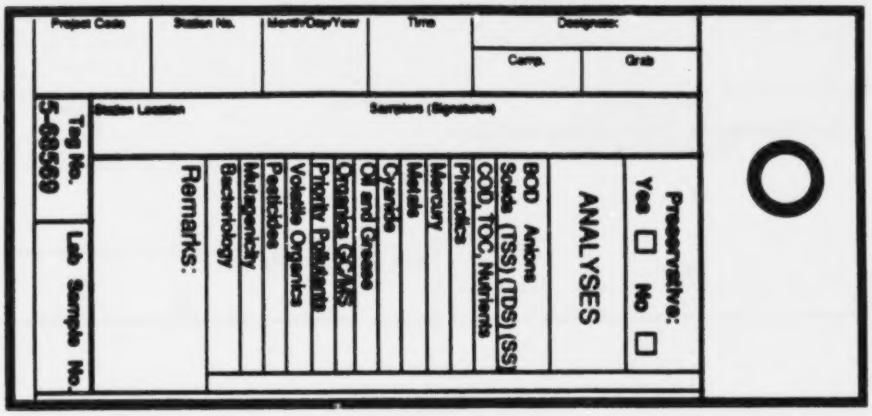

S
E
W
N
Pab
mill
fab
API
Condensate & kiln area runoff
①
②
ditch
③
Road
④
River

See field data sheet for sample info.

	①	②	③	④	⑤
Temp	84°f	60°f	64°f	58°f	Trans Blank
pH	10.7	7.2	9.3	7.3	
flow	23gpm	0.25	22.5	22.5	
t	1:00	1:15	1:25	1:45	1:30
	88244440	88244441	88244442	88244443	88244444

EXHIBIT 13-7

Example of Sample Tag



Project Code
Station No.
Month/Day/Year
Time
Designate:
Comp. ☐
Grab

Station Location
Samplers (Signature)

Preservative: Yes ☐ No ☐

ANALYSES

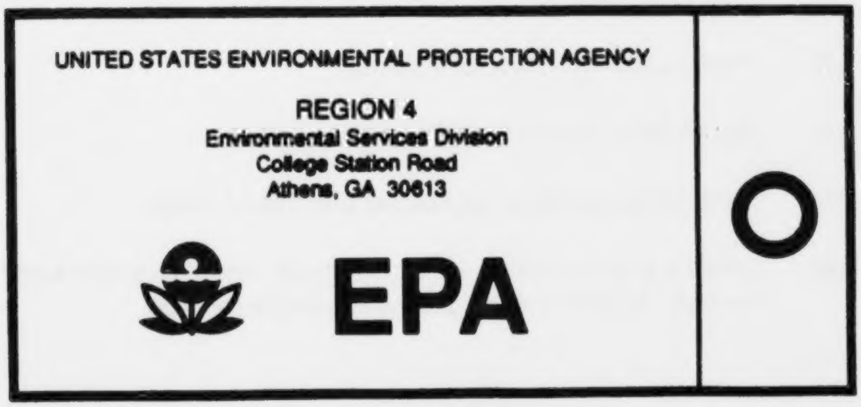
BOD Anions
Solids (TSS) (TDS) (SS)
COD, TOC, Nutrients
Phenolics
Mercury
Metals
Cyanide
Oil and Grease
Organics GC/MS
Priority Pollutants
Volatile Organics
Pesticides
Mutagenicity
Bacteriology

Remarks:

Tag No.
5-68569

Lab Sample No.

FRONT



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

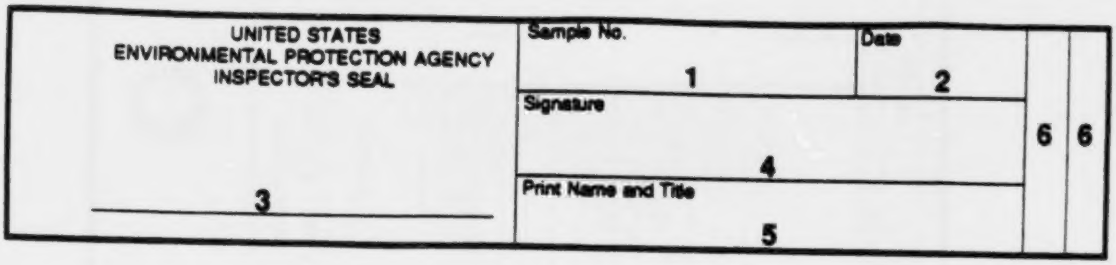
REGION 4
Environmental Services Division
College Station Road
Athens, GA 30613

EPA

BACK

EXHIBIT 13-8

Example of Sample Seal



UNITED STATES
ENVIRONMENTAL PROTECTION AGENCY
INSPECTOR'S SEAL

3

Sample No.

1

Date

2

Signature

4

Print Name and Title

5

6

6

(1) Insert sample number

(2) Insert date sealed

(3) Print location of collector's station

(4) Signature of persons sealing the sample

(5) Print name (same as signature) and title of sealer

(6) When a seal is broken for any purpose, initial here and enter the date-broken. Submit broken seal with sample records

13E SAMPLE MANAGEMENT IN THE FIELD

Samples should be handled, stored, and shipped properly to avoid loss, contamination, danger to handlers, and tampering. Following are general sample management considerations.

- Samples should always be handled in accordance with safety procedures that relate to the specific substance.
- Provisions for sample preservation (refrigeration, chemical preservation, proper packaging materials, etc.) should be planned in advance of actual sampling.
- Recommended holding times for specific samples should be determined and care taken to avoid delays in transit.
- Highly toxic substances may require special handling and such arrangements should be made in advance, if possible.
- Security provisions should be adequate to protect both samples and documents.
- Samples can be delivered to the laboratory by the inspector. When this is not feasible, they should be shipped by the most economical means commensurate with the need for rapid handling. All shipments should be packaged and shipped in accordance with U.S. Postal Service and Department of Transportation regulations.
- Handling and shipping procedures followed should be recorded to document the integrity of the sample.
- Copies of all shipping and handling documents should be obtained (e.g., bills of lading, return receipts, etc.) to become part of the official inspection file.

Sample Preservation

Some analyses require that steps be taken to preserve the sample immediately upon collection in the field. Preservatives required for routine analyses of samples are detailed in program- and media-specific procedures and in Regional laboratory operating manuals. Chemical preservatives used by EPA personnel are usually supplied to the inspector by the Regional laboratory.

Sample tags of preserved samples should clearly indicate that the sample is preserved and with what chemical. If the sample requiring preservation was not preserved, the field logbook should explain why there was a variation from the SOP.

The only samples that should not be immediately preserved in the field are:

- Samples collected within a hazardous waste site that are known or thought to be highly contaminated with toxic materials. Samples from barrels, drums, closed containers, spillage, or other sources at hazardous waste sites should not be preserved with chemicals. These samples may be preserved with ice if necessary.
- Samples that have extremely low or high pH, or samples that may generate potentially dangerous gases if preserved using standard procedures.
- Well or ground-water samples that contain visible sediment should not be preserved with nitric acid if they were not filtered in the field. These samples should be preserved with ice and returned to the laboratory for additional sample preparation.
- Samples for metals analysis which are shipped by air should not be preserved with nitric acid in excess of the amount specified in Regional laboratory procedures.

Sample Holding Time

Prompt analysis is the most positive assurance against error from sample deterioration. Samples should be analyzed within a prescribed time frame after collection. Sample holding times for routine samples are described in Regional operating procedures and/or in program- and media-specific procedures. Inspectors should consult in advance with laboratory personnel to determine if there are any unusual requirements for the particular substance being sampled. Advance planning of the inspection and analytical support helps to avoid delays in sample analysis that could affect quality.

Importance of Sound Packing and Shipping

Because of the potential hazards and possible time delays associated with shipping samples, personal delivery by the inspector is the best method for transporting samples to the laboratory. When this is not feasible, samples are shipped by common carrier.

Shipments of known or suspected hazardous materials are regulated by the Department of Transportation (DOT). Samples that meet DOT's hazardous materials criteria must be packed and labeled according to the requirements set forth in 49 CFR 172.101. Although not all EPA samples contain hazardous materials, the Agency generally ships samples as if they do.

Samples should be packed to prevent breakage. The shipping container should be sealed or locked so that any evidence of tampering may be readily detected. Use of tamperproof evidence tape is recommended.

The inspector is responsible for properly packaging, labeling, and shipping the samples according to DOT regulations. Failure to follow the regulations for packing and shipping could result in the inspector being potentially liable if the samples leak or the shipping container opens and damage is caused to human health or the environment.

In addition to concerns of health and safety, the inspector should be aware of the possibility of cross-contamination of samples. This can occur if all the samples are packed in one shipping container and one of the sample containers breaks. Further complications are likely to occur if the samples evaporate or volatilize. One scenario might involve one ruptured sample container whose contents leak into the shipping container, dissolving the labels on all of the other sample containers, rendering those samples useless. A worst case scenario could involve incompatible materials coming into contact with one another and creating a toxic gas, fire, or explosion. Proper packaging can avoid a situation like this from happening.

Transportation Selection

When selecting a common carrier for shipment of equipment and supplies to a sampling site and the return shipment of samples back to the laboratory, it is important to be aware of the DOT regulations as well as the different operating rules associated with the different modes of transportation. For example, pressurized cylinders cannot be shipped by air freight. Until recently, United Parcel Service would not accept gasoline samples. Other considerations to be aware of include the effect of elevation on sample size limitations and safety.

DOT Hazard Classification

Unless known to be otherwise, samples taken during an inspection are presumed to be contaminated and hazardous. The inspector must judge which DOT class (see below) is applicable, and then pack and ship the samples accordingly.

For samples of an unknown nature, EPA generally uses the flammable liquid class which is the highest appropriate hazard class. To select a lower hazard class would mean that EPA would need to do a flashpoint test in the field, which would be both impractical and potentially dangerous. Radioactive and Poison As are more hazardous than flammable liquids. However, since most Poison As are gases or very volatile liquids, it is unlikely that they would be present at an EPA inspection site. Radioactivity screening requires a radiation survey meter, which is not normally a part of EPA equipment.

Using the word "Flammable" does not convey that there is certain knowledge that the sample or group of samples is, in fact, flammable, or how flammable it or they may be. The inspector is exercising professional judgment that this is the appropriate DOT hazard class for this sample. Similarly, "Poisonous" does not convey the certain knowledge that a sample is poisonous, or how poisonous it may be. Inspectors use professional judgment in placing a sample in this hazard class.

If the technical name of the sample contaminant material is not known, DOT places the burden on the shipper to determine if the sample meets the definition of a hazardous material. In the case of samples being forwarded to the laboratory for analysis, it is assumed that the shipper (that is, the EPA inspector) would have some information about the sample, and, based on that information, he or she would be able to make a reasonable determination whether the sample is likely to be classified as a hazardous material. If truly unable to make such a determination in the field, the inspector should consult with the Hazardous Materials Transportation Coordinator in his or her organization.

DOT Packaging Requirements

The requirements below for packaging hazardous material for shipment is excerpted from DOT regulations.

Standard DOT Requirements for All Packages

"Each package used for shipping hazardous materials ... shall be so designed and constructed, and its contents so limited, that under conditions normally incident to transportation:

- There will be no significant release of the hazardous material to the environment.
- The effectiveness of the packaging will not be substantially reduced.
- There will be no mixture of gases or vapors in the package which could, through any credible spontaneous increase of heat or pressure, or through an explosion, significantly reduce the effectiveness of the packaging."

Additional DOT Requirements for Shipment by Air

"... Each package must be designed and constructed to prevent leakage that may be caused by changes in altitude and temperature during air transportation.

Inner containers that are breakable (such as earthenware, glass, or brittle plastic) must be packaged to prevent breakage and leakage under conditions normally incident to transportation. These completed packages must be capable of withstanding a four-foot drop onto solid concrete in the position most likely to cause damage. Cushioning and absorbent materials must not be capable of reacting dangerously with the contents....

For any packaging with a capacity of 110 gallons or less containing liquids, sufficient outage (ullage) must be provided to prevent liquid contents from completely filling the packaging at 130 degrees F (55 degrees C). The primary packaging (which may include composite packaging), for which retention of the liquid is the basic function, must be capable of withstanding, without leakage, an internal absolute pressure of no less than 26 lbs./sq. in. or no less than the sum of the absolute vapor pressure of the contents at 130 degrees F (55 degrees C) and the atmospheric pressure at sea level, whichever is greater. Stoppers, corks, or other such friction-type closures must be held securely, tightly, and effectively in place with wire, tape, or other positive means. Each screw-type closure on any inside plastic packaging must be secured to prevent the closure from loosening due to vibration or substantial changes in temperature or pressure."

EPA Packaging Procedures

Exhibit 13-10, pages 13-58 through 13-66 contains packaging and shipping procedures for various types and classes of samples in accordance with DOT requirements.

DOT Hazardous Classes

The following are DOT's classification of materials by order of hazard:

- Radioactive material
- Poison A
- Flammable gas
- Non-flammable gas
- Flammable liquid
- Oxidizer
- Flammable solid
- Corrosive material (liquid)
- Poison B
- Corrosive material (solid)
- Irritating materials
- Combustible liquid (in containers having capacities exceeding 110 gallons)
- ORM-B (other regulated material, i.e., barium oxide, calcium oxide, copper chloride)
- ORM-A (i.e., dry ice, carbon tetrachloride, chloroform, DDT, dieldrin, formaldehyde, lindane, malathion, naphthalene, vinyl acetate)
- Combustible liquid (in containers having capacities of 110 gallons or less)

Hazard Class Examples for EPA Samples

Poison A:	Bromacetone, cyanogne, cyanogen chloride containing less than 0.9% water, diphosgene, ethyldichlorarsine, hydrocyanic acid, methyldichloratsine, nitrogen peroxide (tetroxide), phosgene diphosgene), nitrogen tetroxide - nitric oxid, mixtures containing up to 33.2% weight nitric oxide
Flammable liquid:	Acetone, alcohol n.o.s. (not otherwise specified), benzene, cyclopentane, hexane, ink, methyl alcohol, methyl ethyl, ketone, toluene, xylene
Oxidizer:	Chlorate, permanganate, inorganic peroxide, nitro carbo nitrate, or a nitrate that yields oxygen readily to stimulate the combustion of organic matter
Corrosive materials:	"A liquid...that causes visible destruction or irreversible alterations in human skin tissue...or in the case of packaging...that has a severe corrosion ratio of steel"
Poison B:	Aldrin, copper, cyanide, mercuric acetate, nitroaniline, thiophosgene, zinc arsenate
Irritating materials:	"...fumes..." brombenzylcyanide, chloraceophenone, diphenylamine-chlorarsine, diphenylchorarsine
Combustible liquid:	"...flashpoint at or above 100 degrees F and below 200 degrees F..." alcohol n.o.s., benzaldehyde, camphor oil, chlordane-liquid, creosote-coal, tar, fuel oil, pine oil, road oil, and wax-liquid

Procurement of Shipping Services for Samples

Advance Planning

Sample shipping needs should be identified and planned for in advance of the inspection as part of the inspection planning process.

- Estimate approximately how many and what types of samples will be taken.
- Obtain the needed number of signed Government Bills of Lading from the Administrative Assistant.
- Locate an appropriate carrier to ship the samples; they can be found in the Yellow Pages of the phone book under "Trucking-Motor Freight." Note that not all carriers will accept hazardous material. The Region may have a list of motor freight and air carriers that are frequently used.
- Obtain any needed account numbers, procedures, lists of airlines with which the Agency has an account, and any special procedural instructions from the Administrative Assistant.

After the Inspection

- Take the samples to the nearest carrier capable of transporting to the required destination.
- If the cost is more than $150, use a Government Bill of Lading (GBL). If less than $150, use either a Governmental Bill of Lading, a Diner's Club card, or cash. Costs will depend on weight and classification of material.
- If the material is hazardous, declare it.
- Always get a receipt (or keep copy of the GBL). Do not leave the shipping office without some evidence of the shipment and the cost.
- These receipts are part of the Chain of Custody Record

Use of Government Bill of Lading for Shipping Samples

A Government Bill of Lading (GBL) is used as a shipping documents. It is an accountable form and must be safeguarded. Usually, the administrative management unit of each EPA office is responsible for GBLs and maintains a supply of forms. This administrative unit will issue the needed GBL forms to inspectors for shipping samples in advance of the inspection. (See Exhibit 13-9.)

Copies of the GBL should be distributed as follows:

WHITE ORIGINAL: Give to freight agent
YELLOW: Attach to back of the GBL log
BLUE: Give to consignee (the person receiving the shipment)
YELLOW: Send to Finance

EXHIBIT 13-9

This is an Accountable Form

U.S. GOVERNMENT BILL OF LADING

ORIGINAL B/L NO. S- 4846822

TRANSPORTATION COMPANY TENDERED TO

ROUTE ORDER/RELEASE NO

STOP THIS CAR OR TRUCK AT

FOR

CAR, TRUCK OR CONTAINER INITIALS AND NO

KIND

IMPORTANT

Regulations require Original, Shipping Order and Freight Waybill Original and Carrier's Copy to be surrendered to carrier after signature. SF 1103-B Memorandum Copy must be sent to consignee

CAR-TRUCK-CONTAINER		MARKED CAPACITY		DATE FURNISHED	DATE B/L ISSUED
ORDERED	FURNISHED	ORDERED	FURNISHED		
Length/cube		Furnish this information in case of carload/truckload shipments only			

If extra services are ordered see Administrative Directions No. 2 on reverse

FROM

(Shipping point)

FULL NAME OF SHIPPER

Received by the transportation company named above, subject to conditions named on reverse hereof, the property hereinafter described, in apparent good order and condition (contents and value unknown), to be forwarded to destination by the said company and connecting lines, there to be delivered in like good order and condition to said consignee

CONSIGNEE *(Name, address and ZIP code)*

MARKS

DESTINATION *(Name, address and ZIP code of installation)*

BILL CHARGES TO *(Dept./agency, bureau/office, mailing address and ZIP code)*

VIA *(Route shipment when advantageous to the Government)*

APPROPRIATION CHARGEABLE

SEAL NUMBERS

APPLIED BY

FOR CARRIER'S USE ONLY — WAYBILL NO. OR FREIGHT BILL NO.

Contractor will return unused or canceled bills of lading to the Government office from which received.

PACKAGES		DESCRIPTION OF ARTICLES *(Use carrier's classification or tariff description if possible; otherwise use a clear nontechnical description.)*	NUMBERS ON PACKAGES	WEIGHTS*	FOR USE OF DESTINATION CARRIER ONLY		
NO	KIND				CLASS	RATE	CHARGES

If this shipment fully loads the car or truck used, check ☐ YES

TARIFF OR SPECIAL RATE AUTHORITIES *(CL, TL or Vol. only)*

CARRIER FURNISHED SERVICE AT ORIGIN

☐ PICKUP ☐ TRAP-CAR *Initials of shipper's agent*

B/L NO. S- 4846822

FOR USE OF ISSUING OFFICE

CONTRACT OR PURCHASE ORDER NO. OR OTHER AUTHORITY

DATED

NAME OF TRANSPORTATION COMPANY

F.O.B. POINT NAMED

ISSUING OFFICER *(Name and title)*

DATE

DATE OF RECEIPT OF SHIPMENT

Initial carrier's agent, by signature below, certifies he received the Original Bill of Lading

ISSUING OFFICE *(Name and complete address)*

SIGNATURE OF AGENT

PER

CERTIFICATE OF CARRIER BILLING FOR CHARGES — Consignee must not pay any charges on this shipment

ON *(Date)*

AT *(Actual delivery point)*

THE *(Name of delivering carrier)*

DELIVERED THIS CONSIGNMENT COMPLETE AND IN APPARENT GOOD ORDER EXCEPT AS MAY BE INDICATED HEREAFTER

☐ SHORTAGE ☐ DAMAGE ☐ CARRIER OS&D REPORT ATTACHED

SERVICE FURNISHED BY CARRIER AT DESTINATION

☐ DELIVERY ☐ TRAP-CAR

EXHIBIT 13-9 (Continued)

Instructions for Completing a GBL

Follow the steps below when filling out a GBL. (Sample GBL is presented on page 15-57).

1) Name of transportation company. (Full address and telephone number are necessary).
2) From (Address from which shipment is originating.)
3) Full name of Shipper. (Usually same as Step #2. If different, then state.)
4) Consignee. (Person/firm receiving shipment.)
5) Destination. (Usually same as Step #4. If different, then state.)
6) Bill Charges. (Billed to EPA, Finance, M/S 313.)
7) Class, rate, and charges. (This section is for the DCN.)
8) Packages. (Total number of items shipped.)
9) Description of Articles. (Use a clear, nontechnical description, e.g., sample containers, chair, computer terminal.)
10) Number of packages. (If more than one item is being shipped, they should be numbered, e.g., 1/3, 2/3/, 3/3.)
11) Weights. (Weight the package(s).)
12) Name of Transportation Company. (Full name of transportation company. Address is not necessary.)
13) Issuing Officer. (Name of person filling out the GBL and his or her title.)
14) Signature of Agent. (When agent accepts or picks up, they must sign here.)

EXHIBIT 13-10

PACKAGING PROCEDURES FOR ENVIRONMENTAL SAMPLES

- Limit the volume collected to the minimum quantity necessary to conduct the requisite analysis and quality control plus any required splits.

- Identify each sample container with a tab or label at the time of collection.

- Plastic containers should be used unless EPA-approved analytic methods require glass.

- Plastic or glass containers should have screw-types lids. If it is necessary to use stoppers, corks, or other friction-type closures, they must be held securely in place with wire or nylon-reinforced tape.

- Glass containers:

  - The container's screw-type lid must be tightened before it is placed in the shipping container.

  - In the shipping container, glass bottles should be separated by cushioning or absorbent material (e.g., styrofoam, blotting paper, or newspaper) to prevent contact with other hard objects and to prevent breakage.

    - For example, a one-gallon glass bottle (organic sample) can be placed between two carved out styrofoam sheets which secure the bottle at the top and bottom. Small glass bottles (volatile organic sample) can be placed inside a one-quart plastic Cubitaner with screw-type lid to minimize breakage and contain leakage.

- Plastic containers:

  - Polyethylene bottles or Cubitaners do not require cushioning materials to prevent breakage but do need to be protected from puncturing by sharp objects.

  - Caps should be tightly screwed on before the plastic containers are placed in the shipping container.

- For samples requiring preservation with ice, containers should be placed in sturdy plastic bags or containers to minimize ice water leakage.

  - Ice can be placed in separate plastic bags or in large mouth Cubitaners with screw-type lids.

  - Alternatively, samples bottles and ice can be placed together in a large, sturdy plastic bag that serves as a waterproof liner.

- When dry ice is used to preserve plant or animal tissue and the package is to be offered for transportation by air:
  - The packaging must be designed and constructed to permit the release of carbon dioxide gas.
  - The air carrier should be notified well in advance.
  - The package should be marked "carbon dioxide, solid" or "dry ice," and "frozen diagnostic specimens," and "ORM-A" in a rectangle approximately 1/4 inch larger than the letters on each side.
- After all sample containers have been carefully arranged and ice has been added, the plastic bag should be tightly closed with wire, tape, or other positive means.
- Shipping Container:
  - All sample containers must be placed inside a strong outside shipping container. A metal picnic cooler (ice chest) lined inside with hard plastic complies with the DOT drop test requirement.
  - Care must be taken to secure the drainage hole at the bottom of the cooler so that if a sample container or an ice bag leaks, the contents cannot escape. The lid should try to fit tightly to prevent leaks should the container be accidentally turned over.
- Place the Chain of Custody form in the shipping container before closing it.
- Close and secure the shipping container with a lock, seals, and/or custody tape.
- The shipping container must be marked "This Side Up" or "This End Up." The name and address of the Agency program office must be placed on the outside of the cooler.
- An inspection team member must accompany shipping container(s) to the carrier and, if required, open outside container(s) for inspection.

PACKAGING PROCEDURES FOR FLAMMABLE LIQUID OR SOLID SAMPLES

The following procedures apply to flammable liquid or solid samples, such as those that might be collected at hazardous waste sites.

- Collect the minimum volume necessary.
  - The sample should be collected in an eight-ounce or smaller glass container with a nonmetallic, Teflon-lined screw cap.
  - Allow sufficient ullage (approximately 10% by volume) so container is not full of liquid at 130 degrees F (55 degrees C).
  - If a solid, net weight should not be more than one pound.
- Tightly close sample container, attach completed sample identification tag, and place in 2-ml thick (or thicker) plastic bag.
  - Put only one sample in each bag.
  - The sample tag should be placed where it can be read through the bag.
  - Close the bag with a wire, reinforced tape, or other secure means.
- List the appropriate sample identification data on the Chain of Custody Record.
- Carefully place and orient the sample container inside the metal can marked with the sample number.
  - Add enough incombustible, absorbent cushioning material (e.g., vermiculite or diatomaceous Fuller's earth) to completely absorb the liquid contents.
  - Place only one sample in a can.
  - Pressure close the can and use clips, tape, or other positive means to hold the lid securely.
- Place Chain of Custody Record inside the shipping container before closing and securing.
- Close and secure the shipping container with a lock, seals, and/or custody tape.

- Marking and labeling:
  - Use abbreviations only where specified. As used here, "n.o.s." means "not otherwise stated".
  - Use printed stickers or labels to place the following information on the shipping container:
    - Laboratory name and address
    - "Flammable Liquid, n.o.s., UN 1993" or, if a solid, "Flammable Solid, n.o.s., UN 1325"
    - Limited Quantities or "LTD. QTY."
    - "This end up" or "This side up" and arrows.
  - On the outside of the container, place the following labels:
    - "Cargo Aircraft Only"
    - "Flammable Liquid" or "Flammable Solid"
    - "Dangerous When Wet" label if the solid is water reactive or has not been exposed to a wet environment.
- Shipping papers:
  - Use abbreviations only as specified below.
  - Complete a GBL and sign the certification statement (if the carrier does not provide one, use the standard industry form), with the following information in the order listed:
    - "Flammable Liquid, n.o.s., Flammable Liquid, UN 1993" or "Flammable Solid, n.o.s., Flammable Solid, UN 1325"
    - "Cargo Aircraft Only"
    - "Limited Quantities" or LTD. QTY."
    - "Net Weight ________" or "Net Volume ________"
- A team member must accompany shipping container(s) to the carrier and, if required, open outside container(s) for carrier inspection.

PACKAGING PROCEDURES FOR FLAMMABLE LIQUID, CORROSIVE SAMPLES

If a flammable liquid sample exhibits corrosive properties, it must be packaged and shipped accordingly. A corrosive is defined as "a liquid or solid that causes visible destruction or irreversible alterations in human skin tissue at the site of contact, or in the case of leakage from its packaging, a liquid that has a severe corrosion rate on steel." Shipping requirements for corrosives follow.

- Collect the minimum sample volume necessary.
  - Collect the sample in a one-quart glass container and close it with a nonmetallic, Teflon-lined screw cap.
  - Allow adequate ullage (about 10% by volume) so the container will not be full of liquid at 130 degrees F (55 degrees C).
- Attach a properly completed sample identification tag to the sample container.
- Place the quart container inside a 12B fiberboard box with incombustible, absorbent cushioning material (vermiculite or diatomaceous (Fuller's) earth.
  - Polyethylene bags are not used for quart corrosive sample bottles.
  - Use tape to close the box.
- Marking and labeling.
  - Affix the following labels on the box:
    - -- "Flammable Liquid"
    - -- "Corrosive"
    - -- "Cargo Aircraft Only"
  - Mark the box with this additional information:
    - -- "Flammable Liquid, Corrosive, n.o.s., UN 2924"
    - -- Laboratory name and address
    - -- "This side up" or "This end up" and arrows.
- Place the fiberboard box(es), surrounded with sufficient additional, incombustible, absorbent cushioning material to absorb the contents of a broken container, into a strong shipping container (e.g., metal cooler).

PACKAGING PROCEDURES FOR FLAMMABLE LIQUID, CORROSIVE SAMPLES (Continued)

- Mark and label the shipping container:
  - Mark the same as the 12B fiberboard boxes (see above).
  - In addition, mark "Overpack" and "Inside packages comply."
- Shipping papers:
  - Use abbreviations only where specified.
  - Complete Bill of Lading and sign the certification statement with the following information (a single form may be used for more than one shipping container):
    - "Flammable Liquid, Corrosive, n.o.s., Flammable Liquid, UN 2924"
    - "Cargo Aircraft Only"
    - Show net quantity
    - Write also "Overpack" on the shipping papers.
- A team member must accompany the shipping container(s) to the carrier and, if required, open outer container for verification of inside packaging by the carrier's agent.

PACKAGING PROCEDURES
FOR
POISON A SAMPLES

Samples suspected of containing one of the liquids classified by DOT as Poison A must be shipped accordingly. Poison A liquids are "poisonous gases or liquids of such a nature that a very small amount of gas, or vapor of the liquid mixed with air is dangerous to life." Some of the gases and liquids in this class are cyanogen, diphosgene, hydrocyanic acid, and nitrogen peroxide. Samples suspected of containing a Poison A liquid must be shipped according to the following procedures:

- Collect the minimum volume necessary.
- Collect the sample in a polyethylene or glass container which has an outer diameter smaller than the valve hole of a DOT Spec. 3A1800 or 3AA1800 metal cylinder normally used for pressurized gas.
    - Allow sufficient ullage (about 10% by volume) so it is not full of liquid at 130 degrees F (55 degrees C).
- Attach a properly completed Sample Identification Tag to the sample container.
- Using a string or flexible wire attached to the neck of the sample container, lower the container into a metal cylinder (DOT Spec. 3A1800 or 3AA1800) which has been partly filled with incombustible, absorbent loose packing material (vermiculite or diatomaceous (Fuller's) earth).
    - Fill the cylinder to the valve hole with more of the packing material, using care to assure sufficient packing between the sample container and the sides, bottom, and top of the cylinder to prevent breakage.
    - Drop the string or wire into the valve hole.
    - Use one cylinder for each sample of Poison A.
- Install the cylinder valve securely and replace the valve protector on the cylinder using Teflon tape.
- Marking and labeling the cylinder:
    - Use abbreviations only where specified.
    - Using hand printing or prepared labels, place the information below on the side of the cylinder or on a metal tag wired to the valve protector.
    - "Poisonous[2] Liquid, n.o.s., NA 1955" or "Poisonous Gas, n.o.s. NA 1955"
    - Laboratory name and address.
    - A "Poisonous Liquid" label may be used even if the sample is not liquid.

PACKAGING PROCEDURES
FOR
POISON A SAMPLES (Continued)

- Cylinders may be shipped as is, or several may be packed in an overpack.
  - Use the same labels and printing as on the cylinder (see above).
  - In addition, mark the container:
    - "Laboratory Sample"
    - "Inside Package Complies with Prescribed Specifications"
    - "This side up" or "This end up" with arrows.
- Shipping papers:
  - Use abbreviations only as indicated.
  - Complete the following information in the order given (one form may be used for more than one shipping container):
    - "Poisonous Liquid, n.o.s., Poison A, NA 1955" or "Poisonous Gas, Poison A, n.o.s., NA 1955"
    - "Limited Quantity" or "LTD. QTY."
    - "Laboratory Samples"
    - "Net Weight __" or "Net Volume __" (of hazardous contents) by cylinder, if more than one cylinder is contained in a shipping container.
    - The net weight or net volume must be placed on the shipping papers just before or after the "Poisonous Liquids, n.o.s., NA 1955" or "Poisonous Gas, n.o.s., NA 1955" marking.
- Materials classified and packed as Poison A may not be shipped by non-government aircraft.
- Unless samples are driven to the laboratory, a team member must accompany the shipping container(s) to the carrier and will, if required, open the shipping container for inspection of the contents.

PACKAGING PROCEDURES
FOR
POISON A SAMPLES (Continued)

1. Using the word "Flammable" does not convey that there is certain knowledge that the sample or group of samples is, in fact, flammable, nor does it indicate how flammable it or they may be. The inspector is exercising professional judgment that this is the appropriate DOT hazard for this sample.

2. "Poisonous" does not convey the certain knowledge that a sample is poisonous, or how poisonous it may be. Inspectors use professional judgment in packing a sample in this hazard class.

13F: LIST OF PROTOCOLS AND SOPs

Over the years, EPA programs have developed a series of guidance documents, inspection manuals, and other materials which may serve, in part, as the protocols and Standard Operating Procedures (SOPs) for compliance inspections and associated activities. The following pages contain a selected list of such documents to show what methodologies and protocols are available. More detailed information will be provided through program-specific training.

EXHIBIT 13-11

INSPECTION PROTOCOLS/GUIDANCE SELECTED REFERENCES

October 1988

Toxic Substance Control Act (TSCA)

TSCA (General)

- TSCA Inspection Manual: Volume One
  TSCA Base Manual (January 1980)
- TSCA Administrative Case Reporter
- TSCA Compliance/Enforcement Guidance Manual (1984)
- TSCA Confidential Business Information Security Manual (November 1985)
- NEIC Policies and Procedures (June 1985)

TSCA (PCBs)

- TSCA Inspection Manual: Volume Two
  PCB Inspection Manual (March 1981)
- TSCA/PCB Compliance Program Policies 1, 2, 3, 4, 6 and 7
- The PCB Regulations Under TSCA: Over 100 Questions/Answers
  June 1979/November 1983)
- Guidance Document on Sampling and Sampling Selection for Uncontrolled PCBs (November 1983)
- Verification of PCB Spill Cleanup by Sampling and Analysis (August 1985)
- Guidance Manual for Writers of PCB Disposal Permits for Alternate Technologies
- PCB Compliance Monitoring Strategy (May 1988)

INSPECTION PROTOCOLS/GUIDANCE (Continued)

Asbestos (Sampling & Health & Safety)

- Asbestos in Buildings: Simplified Sampling Scheme for Friable Surfacing Materials (October 1985)
- Asbestos Exposure Assessment in Buildings Inspection Manual (October 1982)
- A Guide to Respiratory Protection for the Asbestos Abatement Industry (April 1986)
- Interim Health & Safety Guidelines for EPA Asbestos Inspections (May 1987)

Asbestos Hazard Emergency Response Act (AHERA)

- AHERA Inspection Checklist and Guidance (1988)

Asbestos Abatement Projects Rule (Worker Protection)

- Worker Protection Inspection Checklist and Guidance (1985/1986)

Asbestos (General)

- Asbestos Fact Book (August 1985)
- Asbestos Waste Management Guidance (May 1985)
- Asbestos in Buildings: A National Survey of Asbestos Containing Materials in Buildings (June 1985)

TSCA Sections 5 & 8

- TSCA Section 5 Inspection Pre-Manufacturing Notification (PMN) Inspection Manual (Volume 4, September 1981)
- TSCA Section 5 Inspection Guidance
- TSCA Section 8 Inspection Guidance

INSPECTION PROTOCOLS/GUIDANCE (Continued)

Good Laboratory Practices & TSCA Section 4 (TSCA/FIFRA)

- Good Laboratory Practice Compliance Inspections of Laboratories Conducting Health Effects Studies: Inspectors Manual
- Standard Operating Procedure, DA-01: Auditing Toxicology Data in Long-Term Animal Studies
- Standard Operating Procedure, DA-02: Auditing Chemical Data in Long-Term Animal Studies
- Standard Operating Procedure, DA-03: Auditing Pathology Data in Long-Term Animal Studies

Federal Insecticide Fungicide and Rodenticide Act

- Pesticides Inspection Manual (1975)
- FIFRA Compliance/Enforcement Guidance Manual (1983)
- FIFRA Case Proceedings Manual (1975)
- FIFRA Compliance Compendium

Safe Drinking Water Act

Underground Injection Control

- Underground Injection Control Inspection Manual, U.S. EPA, Office of Drinking Water, February, 1988

Public Water Supply Systems

- Sanitary Survey Training Manual's Student Text, 1983
- Water Treatment Plant Operation Volumes I and II, 1983
- Water Supply System Operation, 1983
- Groundwater Monitoring Technical Enforcement Guidance Document, 1986: Chapter 4, Sampling and Analysis
- Technical Case Development Guidance Document, June 1988, Part 3.3

INSPECTION PROTOCOLS/GUIDANCE (Continued)

Clean Water Act - National Pollution Discharge Elimination System (CWA-NPDES)

- Procedures for Compliance Sampling Inspections and Toxic Sampling Inspections are in Chapter V of the NPDES Compliance Inspection Manual.
- Procedures for Compliance Biomonitoring Inspections are in Chapter VII of the NPDES Inspection Manual.
- Inspection Procedures for all NPDES inspections are in the NPDES Compliance Inspection Manual, May, 1988.
- NPDES Compliance Flow Measurement Manual (NTIS: PB 82131178, IRC:050U)
- Inspections' Guide for Evaluation of Municipal Wastewater Treatment Plants (021U)
- Performance Audit Inspection Policy and Guidance, December 1979
- Pretreatment Compliance Monitoring and Enforcement Guidance
- Pretreatment Compliance Inspection and Audit Manual for Approval Authorities

Resource Conservation and Recovery Act (RCRA)

- SW-846: Test methods for evaluating waste, physical/chemical methods. (Sampling and testing methods for use in implementing RCRA)
- Groundwater Monitoring Technical Enforcement Guidance Document, 1986: Chapter 4, Sampling and Analysis
- Technical Case Development Guidance Document. June 1988, Part 3.3
- RCRA Inspection Manual. OSWER Directive 9938.2A
- Hazardous Waste Tank System Inspection Manual 9938.4
- Groundwater Monitoring Systems Compendium:
  - RCRA Comprehensive Groundwater Monitoring Evaluation Document. OSWER Directive 9950.2
  - Operations and Maintenance Inspection Guide. OSWER Directive 9950.3
  - RCRA Laboratory Audit Inspection Guidance Document. OSWER Directive 9950.4
- Land Disposal Restriction Inspection Manual. OSWER Directive 9931.1A

Clean Air Act

Stationary Source Inspection Protocols

- Air Compliance Inspection Manual (September, 1985) EPA 340/1-85-020
- The Clean Air Act: Compliance/Enforcement Manual (Revised 1987)
- Guide to Effective Inspection Reports for Air Pollution Violations (September, 1985) EPA 340/1-85-019
- Air Pollution Source Inspection Safety Procedures - Workshop Manual EPA 340/1-85-002a
- Respiratory Protection Programs Guideline EPA 340/1-85-002c
- Air Pollution Source Field Inspection Notebook (in printing) EPA 340/1-85-88-001
- Inspection Techniques for Evaluation EPA of Air Pollution Control Techniques: Vol. 2 - Workshop Manual 340/1-85-002b

Visible Emission Inspection Procedures

- Guidelines for Evaluation of Visible Emissions: Certification, Field Procedures, Legal Aspects and Background Materials (April, 1985) EPA 340/1-75-007
- Quality Assurance Handbook for Air
  Pollution Measurement Systems: Vol. III
  Stationary Source Specific Methods
  Section 3.12 - Method 9 Visible
  Determination of Opacity of Emissions
  from Stationary Sources (February, 1984) EPA 600/4-77-027b
- Technical Assistance Document: Quality Assurance Guideline for Visible Emission Training Schools (February, 1984) EPA 600/4-83-011
- Instructions for Use of the VE Observation Form EPA 340/1-86-017

INSPECTION PROTOCOLS/GUIDANCE (Continued)

Control System Inspection

Pollutant Capture/Exhaust Systems

- Performance Evaluation Guide for Large Flow Ventilization Systems EPA 340/1-84-012
- Guidelines on Preferred Locations and Design of Measurement Ports for Air Pollution Control Systems EPA 340/1-84-017
- Technical Manual: Hood System Capture of Progress Fugitive Particulate Emissions (April, 1986) EPA 600/7-86-016

Control Equipment

- Operating and Maintenance Manual for Electrostatic Precipitators EPA 625/1-85-017
- Flue Gas Desulfurization Inspection and Performance Evaluation EPA 625/1-85-019
- Operation and Maintenance Manual for Fabric Filters EPA 625/1-86-020
- Inspection Procedures for Evaluation of Electrostatic Precipitator Control System Performance EPA 340/1-79-007
- Wet Scrubber Inspection and Evaluation EPA 340/1-83-022
- Fabric Filter Inspection and Evaluation Manual (February, 1984) EPA 340/1-84-002

NESHAP Source Inspection

Asbestos Source Inspections

- NESHAP Asbestos Demolition and Renovation Inspection - Workshop Manual EPA 340/1-88-008
- NESHAPs Asbestos Demolition and Renovation Inspector Safety-Workshop Manual EPA 340/1-88-009
- EPA Demolition and Renovation Inspection Procedures Manual (Interim Draft) EPA 340/1-88-010

Other NESHAPs

- Inspection Manual for Vinyl Chloride EPA 340/1-78-010

INSPECTION PROTOCOLS/GUIDANCE (Continued)

VOC Source Inspection Records Review

General Inspection

- A Guide for Surface Coating Calculations EPA 340/1-86-016 (7/86)
- A Guideline for Graphics Art Calculations EPA 340/1-88-004 (8/88)
- Recordkeeping Guidance Documents for Surface Coating and Graphics Arts Calculations (Draft) EPA 340/1-88-003
- Field Inspection Notebook for VOC Sources (Draft) EPA 340/1-86-0022
- Portable Instruments User's Manual for Monitoring VOC Sources EPA 340/1-86-015 (6/86)
- Inspection Manual for Enforcement of RACT - Degreasers EPA 340/1-79-008
- Inspection Manual for Control of Volatile Organic Emissions from Gasoline Marketing Operations EPA 340/1-80-012

Source-Specific Manuals

- Inspection Manual for Vinyl Chloride EPA 340/1-78-010
- Petroleum Refinery Enforcement Manual EPA 340/1-80-008

Combustion Source Inspection

- Coal-Fired Industrial Boiler Inspection Guide EPA 340/1-83-025
- Combustion Efficiency Optimization Manual for Operators of Oil and Gas-Fired Boilers (September, 1983) EPA 340/1-83-023
- Continuous Emission Monitoring Systems (CEMs) Inspection and Audit Procedures

INSPECTION PROTOCOLS/GUIDANCE (Continued)

General

- Guidelines for the Observation of Performance Specification Tests of CEMs EPA 340/1-83-009
- Handbook for the Review of Excess Reports EPA 340/1-86-008
- Technical Guidelines on Review and Use of Excess Emission Reports (EPA) 340/1-84-015
- Technical Guidance on Use of Coal Sampling and Analysis Data EPA 340/1-85-010

Opacity Pollutant Monitoring

- Inspection Guide for Opacity CEMs (6/88) EPA 340/1-88-002
- Technical Assistance Document: Performance Audit Procedures for Opacity Monitors EPA 600/8-87-025

CHAPTER 14

INTERVIEWS

Interviews are a highly valuable, but often underutilized, means of gathering information during an inspection. Oral and written statements obtained from facility personnel are usually admissible evidence. An inspector with good interviewing skills can elicit information and develop important facts that might otherwise be missed.

While written materials cannot replace practical experience for learning and improving interviewing skills, the techniques presented in this section can help shorten the training time needed to become a successful interviewer. Many of these techniques are designed to ease the tension and anxiety that plant managers and employees may experience at the thought of being interviewed by an EPA enforcement official. Other techniques are designed to aid inspectors in composing questions that will more effectively elicit useful information.

The section begins with a discussion of statements as evidence, including procedures for how to prepare a written statement. This is followed by a discussion of the steps in planning and conducting interviews, questioning techniques, and some suggestions for creating an atmosphere conducive to a productive interview.

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14A STATEMENTS AS EVIDENCE

Oral or written statements obtained during an inspection are generally admissible in court under exceptions to the "hearsay evidence" rules. Statements made by a company employee is an example. Even when statements made during an inspection interview are not admissible, statements are still useful for cross-examination purposes or to develop leads for investigation.

- Criminal investigations. While most EPA inspectors do not normally become involved in criminal investigations, note that even statements obtained at the scene of a criminal investigation during the execution of a warrant are legal. The Fifth Amendment privilege against self-incrimination applies only to in-custody interrogation. It is not necessary to read rights prior to asking questions of a witness who is not in custody.

Documenting the Interview

A written record should be made of each interview. As applicable in the particular circumstances, this may be in the form of an affidavit, a verbatim record of questions and answers, unsworn statements, or informal notes. Some people are inhibited by the sight of an inspector taking notes, while others may feel that the inspector's failure to take notes indicates a lack of interest in them and in what they have to say. In the final analysis, the inspector must evaluate the individual in each interview to determine the correct approach.

Notetaking

It is important to take accurate field notes; however, it is equally important that the notetaking or documentation process be unobtrusive and not interfere with the interview process.

If the interviewee's pace is too fast, wait for appropriate breaks in the conversation and "backtrack" by reviewing salient points. Try slowing the conversation by deliberately slowing the delivery of questions. Experts have found that when a strong rapport is established between two individuals engaged in conversation, the pace of one influences the other. Only as a last resort should the inspector ask the interviewee to slow down a bit. Keep in mind that such a request, no matter how reasonable, asks the interviewee to abruptly change pace and usually tends to dampen somewhat the enthusiasm that is causing the heightened speed of the conversation. Avoid frequent interruptions or asking for an answer to be repeated.

If two inspectors are present, a useful technique is for one to ask questions and the other to take notes. This approach also avoids any potential for lost credibility because of differences in inspectors' notes.

Use of Tape Recorders

Inspectors frequently ask whether or not they can use tape recorders or electronic recording devices during an interview. There are no legal barriers to the use of tape recording equipment by the inspector solely for the purpose of recording his/her own observations during the inspection. Also, the ispector may record an interview, _if_ it is done with the knowledge and consent of the interviewee. However, if a given investigation requires tape recording individuals without their knowledge, the inspector must consult with the Office of Regional Counsel. Otherwise, the inspector may violate criminal statutes which prohibit such actions. In considering the use of a tape recorder, the inspector should gauge whether the interviewer is more or less likely to talk freely.

Written Statements

If the information given by the interviewee seems especially significant, the inspector should attempt to obtain a signed, written statement according to procedures discussed below.

Inspectors can obtain formal written statements from persons who have personal, first-hand knowledge of facts pertinent to a suspected violation or have knowledge of information that a third party known by name may be able to provide or who have information whose source is not clearly known. The principal objectives of obtaining a statement are to record in writing, clearly and concisely, relevant factual information so that it can be used to document an alleged violation. This statement of facts is signed and dated by the person who can testify to those facts in court, and it may be admissible as evidence.

Procedures for Obtaining Written Statements

In taking statements, the following procedures and considerations should be applied.

- Determine the need for a statement. Will it provide useful information? Is the person making the statement qualified to do so by personal knowledge?
- Ascertain all the facts and record those which are relevant regardless of the source.
- In preparing a statement:
    - Use a simple narrative style; avoid stilted language.
    - Narrate the facts in the words of the person making the statement.
    - Use the first-person singular ("I am manager of....").
    - Present the facts in chronological order (unless the situation calls for other arrangements).
- Positively identify the person (name, address, position).
- Show why the person is qualified to make the statement.
- Present the pertinent facts.

- Have the person read the statement and make any necessary corrections before signing. If necessary, read the statement to the person in the presence of a witness.
  - All mistakes that are corrected must be initialed by the person making the statement.
- Ask the person making the statement to write a brief concluding paragraph indicating that he read and understood the statement. (This safeguard will counter a later claim that the person did not know what he was signing.)
- Have the person making the statement sign it.
- If he refuses to sign the statement, elicit an acknowledgement that it is true and correct. Ask for a statement in his own handwriting ("I have read this statement and it is true, but I am not signing it because...."). Failing that, declare at the bottom of the statement that the facts were recorded as revealed and that the person read the statement and avowed it to be true. Attempt to have any witness to the statement sign the statement with his name and address.
- Provide a copy of the statement to the signer if requested.

14B STEPS IN PLANNING AND CONDUCTING INTERVIEWS

While each interview will be different because of the dynamics between the individuals involved and the topics to be covered, there are several basic steps to an interview.

- Planning. In this step, topics to be covered and information needed from the interviews is decided, individuals to be interviewed identified, and time and places for the interviews scheduled.

- Conducting. This step includes introductions, discussion of the interviewee's position and responsibilities, more detailed questioning on specific points, and summarizing to assure accuracy.

- Documenting. This step, which happens in part concurrently with the conducting step, includes notetaking, and when appropriate, obtaining a written statement.

Planning the Interview

Outline the "Unknowns"

The inspection plan sets out the objectives of the inspection. An outline of topics for which interview information is likely to be needed will help identify individuals who should be interviewed. An outline of questions or topic areas should be prepared to assure that all needed information is solicited.

Identify Interviewees

In addition to facility managers who can describe company operations and policy, generally, it is useful to interview directly the persons who are carrying out the various regulatory responsibilities (e.g., recordkeeping, operation, and maintenance) to determine what facility practices are. Others may also be interviewed to flesh out the details of a suspected violation. In most cases, it is desirable to interview every person thought to have relevant information. Often, at least a preliminary list of individuals who should be interviewed can be developed during the opening conference with facility management.

Scheduling and Logistics

To the extent possible, without subverting the purpose of the interview or the inspection, try to schedule the interview at a time that is convenient for the interviewee. Generally, it is most comfortable for the interview to take place in the interviewee's own work area (e.g., in the plant area rather than in a conference room). A schedule for interviewing various facility personnel can often be worked out during the opening conference.

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Set Objectives for the Interview

Before each interview, identify the specific reason that the individual is to be interviewed, that is, the individual's relationship to the information being sought and what he or she is likely to know. Jotting down key questions in advance can help assure that the objectives of the interview are met.

Conducting the Interview

Initial Contact

The first contact between the inspector and interviewee sets the tone. While each inspector will develop his or her own style for establishing rapport, it usually is helpful to begin by explaining the purpose of the inspection and interview. After initial exchanges, the interview shifts to more specific questions.

Overview of Interviewee's Job

Begin by asking the employee to explain his or her responsibility as it relates to the topics being reviewed in the inspection. These introductory questions are useful even in a very short interview because it helps put the interviewee at ease and may trigger questions that would otherwise not have been asked.

Gather Detailed Information

At this stage, follow up with probes designed to answer the compliance questions raised in the inspection plan. Questions should be specific and concrete to elicit the most useful answers. (See discussion on Questioning Techniques which follows.)

Summarize the Information

After each phase of the interview, recheck to see that all the "unknowns" on the pre-interview list have been satisfactorily explored, and that all clues of additional information have been explored. Consider whether there is any conflicting information that deserves a request to be shown what the interviewee means. Next, mentally rearrange the information obtained so that the details follow one another in a logical continuity. Then summarize the interview by stating all important details in proper sequence. Stop after each statement of segment or the summary and ask the interviewee to verify the correctness of your interpretation. If the interviewee indicates any disagreement, the discrepancy should be corrected before proceeding.

Documenting the Interview

As discussed in detail in the previous section, the interview should be fully documented. This is normally done by taking careful notes; in some cases, inspectors may seek to obtain formal, written, and signed statements. The interview may also be tape recorded.

14C QUESTIONING TECHNIQUES

Questions are the principal tools of interviewing. The quantity and quality of information obtained from interviewees will usually be proportional to the inspector's skill in formulating and asking questions.

Some of the fundamental characteristics of good question construction are:

- Make questions short and confined to one topic.
- Make questions clear and easily understood.
- Use neutral words.

Types of Questions

The Seven "Ws"

When complete answers to the seven questions below are obtained, the issue being explored is usually resolved satisfactorily. These questions are basic to all interviews.

- What? (What happened?)
- When? (When did it happen?)
- Where? (Where did it happen?)
- Why? (Why did it happen?)
- How? (How did it happen?)
- Who? (Who was involved?)
- Which? (Which one reviewed the records?)

The questions "Why?" and "Why not?" are the most powerful and are of great value in interviews.

Precise Questions

The precise question is one that calls for a specific or an exact answer. It limits the requested answer to definite items of information. Precise questions help keep the discussion and pattern of thinking moving toward a particular goal. Usually they will extract the desired information quickly and with minimum effort.

The following questions are increasingly precise in ascending order:

- What did you do?
- What did you do when you were growing up?
- What did you do last year?
- What did you do yesterday afternoon?
- What did you do at about 3:15 yesterday afternoon?
- What did you do about getting home when you missed the 3:15 bus yesterday?

Extended Answer Questions

Questions should generally be framed to require a narrative answer. Soliciting "yes" or "no" answers usually restricts the information that the subject may be inclined to give and usually is inadequate to completely answer the inquiry. Questions requiring a "yes" or "no" answer frequently are leading or suggestive. They may be acceptable when summarizing or verifying information, but should not be used when seeking new information.

Leading Questions

Leading or suggestive questions are those which suggest the desired answer, assume something to be fact which has not been established as a fact, or embody a fact and require a simple negative or affirmative answer. Leading or suggestion questions tend to influence the answers given by the interviewee and should be avoided while asking for original information and monitoring inspection. Leading questions can be useful in getting a particular answer or in refreshing an individual's memory; they are frequently used in cross-examination to test or break down previous statements.

Examples of leading questions in order of their suggestiveness:

- Did you see a ___________?
- Didn't you see a ____________?
- Didn't you see the ____________?
- Wasn't there a ________________?

Questions to Avoid

- Double or Triple Negative Questions. Questions or statements involving double or triple negatives are confusing and often suggest an answer opposite to the correct one. They should never be used. Examples: Didn't he have no dinner? Couldn't you see him neither?

- Complex Questions. Complex questions and statements are those that are too complicated to be easily understood, cover more than one subject or topic, require more than one answer, or require a complicated answer. Example: Where did you get the truck and how did you load the drums in it?

Question Sequencing

An issue is an occurrence, situation, or subject in an inspection that needs to be explained or resolved. Issues are generally resolved by sequences of questions. As a rule, a separate sequence is required to resolve each issue. The sequence of questions should push towards the resolution of the issue.

General to Specific

The most efficient means of resolving an issue is to have the questions cover it by progressing from the GENERAL to the SPECIFIC. Seek general information on the setting of an event before exploring details. Determine what was done before exploring how it was done.

Reaching Backward

Questions will progress more logically with less risk of omissions if transition is used to connect thought. To do this, start with known information and work toward areas of undisclosed information. An efficient method of achieving this sequence is to mentally reach backward over the known information and frame the next question as the logical continuation of the facts previously related.

The following illustration portrays use of the "known to unknown" sequence orientation before proceeding to the next question. Statements that are enclosed in parentheses are the unspoken thoughts of the interviewer as he prepares to frame each new question:

Q: (You said earlier you sent to Mudville.) Now what means of transportation did you use?
A: A car.
Q: (If you sent in a car?) Who drove?
A: I did.
Q: (You drove a car to Mudville.) Was anyone with you?
A: Two guys went with me.
Q: (You drove a car with two passengers.) What were their names? Etc.

Estimates of Quantities

Interviewees rarely give the right answer the first time asked for the number or quantity of anything. To determine more specifically time or quantities of space and material, the following types of question sequences may be of value.

- Change of Reference Point. When descriptions of quantities are complicated or hard to understand, they frequently can be simplified by changing the reference point. Examples:

  An interviewee may describe the location of an illegal discharge pipe as four miles east, one and one-half miles south, and two miles southeast of town. It is difficult to comprehend exactly where this location is. If guided, the interviewee may be able to simplify by advising that it is one-half mile downstream from the Long Lake Town Hall, on the river.

  It does not mean much to mention a large quantity of hazardous waste. If the interviewee will convert the amount to 60 barrels or a truckload, it gives a clearer picture of the quantity.

- Comparison. When descriptions of quantities are vague or indefinite, they can often be made more specific by comparing them with similar items of known quantity. Examples:

  Was he taller than I am?
  Which one was the largest?
  What share of the pizza did you get?

  In some cases where quantities are persistently given in generalities, it is productive to bracket the probable amount by suggesting quantities and by enlarging or sub-dividing the suggested quantity to get the interviewee to more specifically agree on an amount. Example:

  Q: How far away was Smith when you first saw him?
  A: He was a long ways down the road.
  Q: About how far would you say?
  A: I don't know -- quite a ways.
  Q: Do you know how long a mile is?
  A: I'm a pretty good judge of distance.
  Q: How far would you say it is from here to City Hall?
  A: About two miles.
  Q: That is a good estimate. Now, would you say Smith was more or less than a mile away when you saw him?
  A: Much less.
  Q: Was he more or less than a half mile away?
  A: Less.
  Q: Was it more or less than a quarter mile?
  A: More, I think.
  Q: Would you say it was closer to a quarter mile or more nearly a half mile?
  A: It was closer to a quarter mile.
  Q: Then would it be correct to say the distance was a little more than a quarter of a mile?
  A: That would be about right.

Applying Interviewing Techniques

Free Narrative

Free narrative is an orderly continuous account of an event or incident given with or without prompting. It is used to get a quick resume of what a person knows or is willing to tell about a matter. Usually it can be initiated by requesting the individual to tell what he knows about the matter.

Frequently, the interviewee must be kept from digressing, but use a minimum of interruption and do not be too hasty in stopping him from wandering in the narration. He will sometimes give valuable clues while taking about things that are only partially related to the matter under consideration. Be careful not to erroneously interpret deviations from the anticipated narrative as wandering.

Systematic Questioning

Systematic questioning (termed "direct examination" in legal proceedings) is designed to bring out a connected account of an event or an incident. In an interview, its purpose is to elicit new information or to fill in details omitted during free narrative. Following are tips for eliciting more details in the interview.

- Begin by asking questions that are not likely to cause the interviewee to feel threatened.
- Ask the questions in a manner that will develop the facts in the order of their occurrence or in some other systematic order.
- Ask only one question at a time and frame the questions so that only one answer is required by each question.
- Give the interviewee ample time to respond. Do not rush him.
- Try to help him remember but do not suggest answers, and be careful not to imply any particular answer by facial expressions, gestures, methods of asking questions, or types of questions asked.
- Repeat or rephrase questions again and again if needed to get desired facts.
- If answers are not perfectly clear, have the interviewee explain them again.
- Give the interviewee time to qualify his answers.
- Separate facts from inferences or opinions.
- Recognize conflicting information and learn when to say "show me."
- Get all of the facts. Almost everyone can provide more information that he initially recalls or admits knowing.
- After the interviewee has given a narrative account, ask questions. Answers to little things will frequently contain clues to previously unreported information of interest.
- After each segment of the interview, ask the interviewee to summarize his information and then follow up by a resummarization and have the interviewee verify the correctness of the statements.

Cross-Examination

Cross-examination is exploratory questions designed to test the reliability of or to break down the previous statements of interviewees. It is generally not used by inspectors in routine inspections; cross-examination is mostly associated with criminal investigations. It is used to test previous statements for correctness, resolve conflicting information, determine completeness, fill in evaded details, evaluate the judgment of interviewees, and undermine the confidence of those who lie.

14D CREATING A PRODUCTIVE INTERVIEW ATMOSPHERE

The most productive interviews are those in which the interviewee feels comfortable and respected. The following suggestions were adapted from "Environmental Auditing Skills and Techniques Workbook" prepared by the Edison Electric Institute.

Attitude and Approach

If the interviewer comes across as professional, courteous, genuine, and non-threatening, the interviewee is more likely to provide candid information.

- Be courteous. The interviewee is more likely to give a positive response if he feels respected. Acceptance of the interviewee's statements in a matter-of-fact way can reduce threat. The inspector's choice of words can also influence the tone of the interview. For example, "You seem very determined," is a less threatening comment than "You are very stubborn."

- Use an appropriate voice tone and inflection. Each interview should be conducted in a tone of voice that will be perceived as soft, friendly, and gentle.

- Do not jump to conclusions. An interview can quickly turn sour if the inspector indicates that he or she has drawn a negative (or positive) conclusion. Conclusions regarding compliance status are not likely to rest solely on interview statements; further, it is Agency policy not to indicate inspection conclusions on-site. Also creating a poor atmosphere is making a quick notation in the field logbook accompanied by a statement such as "Thank you, that's all I need." A better approach is to say, "If I understand you correctly, you are saying you do have a plan, but it has not been approved by a professional engineer. Is that correct?"

The Interview Setting

A poor interview setting can detract substantially from an effective interview. The following suggestions can aid in setting a comfortable atmosphere for the interview.

- Go to the interviewee's work area. People are most comfortable in their own work place. Except for the rare situation where it is completely impractical, conduct the interview in the interviewee's own work area.

- Make sure the interviewee feels that there is sufficient privacy. Only the interviewee knows whether he or she feels constrained by other employees who may be nearby or within earshot. Give the interviewee a chance to opt for some place more private.

- Make sure both people are "on equal ground." Both the inspector and interviewee should be on equal ground, that is, seated or standing together in a comparable way.

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- Try to keep it "one-on-one." Whenever possible, try to avoid having two or three inspectors "gang up" on an individual. If more than one inspector is present, only one should ask the questions; the other(s) should take notes.

- Minimize distractions. Noise and interruptions are the most common distractions. If there is a high level of noise, ask if it would be all right to find a quieter place. If there are constant telephone calls, explain in a polite and respectful way that uninterrupted time is needed and suggest that a secretary take calls.

Non-Verbal Communication

Much of the information exchanged during an interview is done non-verbally. Communication is a composite of meanings, expressed through gestures, facial expressions, voice inflection, and posture as well as through speech. Following are a few suggestions regarding non-verbal communication that can aid in interviews.

- Shake hands. Start each discussion by shaking hands with the interviewee, to show respect and make him or her feel more comfortable.

- Maintain eye contact. Eye contact often connotes interest in, and attention to, what the interviewee is saying. It may also aid the inspector to distinguish body language that presents a different message than what is being spoken.

- Keep the right distance. Sit at a comfortable distance from the interviewee. Generally, a distance of three to five feet is appropriate.

- Non-verbal statements. Recall that an interviewee's gestures and responses or lack or response to what someone else says can be statements or adopted statements by the interviewee. Watch for and note these.

Common Shortcomings in Interview Skills

The shortcomings described below are common even among experienced interviewers. They can interfere with and reduce the effectiveness of the interview process.

- Asking Leading Questions. Inspectors often ask questions that unintentionally "lead" the interviewee toward a desired answer. The form might be something like: "You do clean the filter after each operation, don't you?" or "You would inform the spill coordinator if a spill were to occur?"

  The basic task of the inspector is to gather information, and this is usually done by phrasing questions in a manner that produces the most information. The "Seven W" words elicit these best. Avoid questions that suggest the desired answer, and avoid questions that can be answered by a simple "yes" or "no."

- Telegraphing. Inspectors sometimes unintentially "telegraph" their evaluation of the interviewee's response -- favorable or unfavorable -- through gestures, facial expressions, or speech. Examples of verbal telegraphing are: "You must be kidding," "Is that all you do," and "Doesn't anyone important ever look at these records?". Frowns, scowls, and other non-verbal signals can equally telegraph signs, but are harder to control.

- Fear of Silence. When encountering a period of silence during an interview, some interviewers tend to rephrase the pending question, or put forth a new question, while the interviewee is attempting to formulate his or her reply to the first question. Give the interviewer adequate time to respond. Silence is rarely as long as it seems.

CHAPTER 15

OBSERVATIONS AND ILLUSTRATIONS

Any sense perceptions an inspector has while carrying out an inspection may be useful. They include anything the inspector sees, smells, hears, or touches. They may be captured for later use by illustrations (such as photographs, maps, and sketches) or by notes in a logbook. This chapter discusses the most common and effective means of capturing the inspector's observations for later use in the inspection report or in a courtroom.

Other, more specialized, types of observations are covered separately in other sections of this text, concerning interviews, physical samples, readings from monitoring instruments, and reviews of records.

Observations and illustrations are important for several reasons. They enhance the admissibility and credibility of other evidence. They provide a context for other evidence, such as physical samples. They help a judge or jury form a mental picture of the inspected facility or site, so the various pieces of evidence can be better understood. They may also be evidence in themselves.

Several kinds of observations can be used to corroborate a single piece of the story. For instance, physical samples taken at a given site may be supported by logbook notes describing the site, by a sketch or map notation, and by a photograph of the sampling site.

Observations can be fruitful even in purely procedural parts of the inspection. For instance, if the inspector is denied entry, notes should be entered in the logbook describing the appearance of the facility and the conduct of company officials, and a photograph of the facility entrance may be taken. The notes and photograph will substantiate that the inspector was actually at the site. They paint a picture in a judge's mind of the events as they occurred.

Once the observations are captured by the means described below, it is important to preserve their value as evidence. In any enforcement case, EPA must be able to show that a given piece of evidence was gathered during a particular inspection. For this reason, documentation of the illustrations is important. Chain of custody procedures are sometimes used for photographs, so the court can be assured that the pictures have not been altered or touched up.

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15A FIELD NOTES/LOGBOOK

The inspector's field notes document what the inspector saw, heard, smelled, or touched. Field notes serve as evidence to corroborate other forms of evidence, such as physical samples or photographs. They serve as the foundation for preparing inspection reports and refreshing the inspector's memory about the inspection prior to giving testimony. They may be subject to discovery and disclosed to the opposing side and may be entered as evidence in a trial.

Since they may be disclosed to the opposing side in an enforcement case, field notes must contain just the facts. Even if the inspector believes the inspected facility is clearly in violation, that conclusion must be omitted. Instead, all the observed conditions that led the inspector to that belief should be meticulously recorded in the notes.

Field notes may be taken either in written form in a field logbook or in spoken form on an audio recording device, such as a portable tape recorder or dictating machine. (Policies on use of audio recordings may differ among EPA offices. If in doubt, inspectors should consult their supervisors.) The discussion in this section focuses on the field logbook as the core of all inspection documentation.

Inspector's Field Logbook

The inspector's field logbook is the core of all inspection documentation. It should contain accurate and inclusive documentation of all inspection activities. The logbook is used as the basis for preparing the inspection report and to refresh the inspector's memory regarding the specifics of sample collection and other inspection procedures should the inspector be called upon to testify. Logbooks are the property of EPA and become a part of the official inspection file.

Language in the logbook should be objective, factual, and free of personal feelings and conclusions of law. The logbooks can be provided to the opposing side during the discovery process of an enforcement case and can be entered as evidence in court.

The Logbook

Inspectors should use only bound field logbooks for maintaining field records, preferably with consecutively numbered pages. Standard field logbooks can be obtained from the General Services Administration (Federal supply numbers 7530-00-274-5494 and 7530-00-222-3525). Other bound logbooks such as bound surveyors logbooks are acceptable as long as pages cannot be removed without tearing them out.

- Sampling Procedures. Inspectors should identify all sample collection equipment, field analytic equipment, and equipment utilized to make physical measurements in the logbook. All calculations, results, and calibration data for field sampling, analytic, and physical measurement equipment should also be entered. All sampling and field analysis equipment must be traceable to the specific piece of equipment used and the inspector who did the work. The rationale for taking the particular sample, including sample selection and representativeness considerations, should also be noted.

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- Documents. All documents taken or prepared by the inspector should be noted and related to specific inspection activities. (For example, photographs taken at a sampling site should be listed, described, and related to the specific sample number.)

- Unusual Conditions and Problems. Unusual conditions and problems should be noted and described in detail.

- Interview Notes. Names and titles of facility personnel and the activities they perform should be included along with notes from the statements they made.

- General Information. Names and titles of facility officials, size of facility, description of operations, number of employees, and other general information, such as how the facility keeps its records, may be useful in case development as well as for future inspections.

- Other Incidents. Detailed notes should also be kept about any other incidents that occurred during the inspection, such as an electrical power failure or tampering with government vehicles or equipment.

- Administrative Data. Entries regarding travel and fiscal data related to the inspection should be entered in accordance with Regional and/or program policy.

Basic Procedures

Each member of an inspection team should be issued his/her own field logbook. Each logbook should be dedicated to a single inspection; this assures that information from an inspection conducted at a different facility (or different time at even the same facility) does not become subject to discovery.

Use waterproof ink in the logbook.

Inspectors sign their logbooks in ink upon receipt and use them to record all pertinent information until the inspection is complete.

All entries to the logbook should be made in ink and should be legible, with the date and time of each logbook entry recorded. Anyone else (other than the person to whom the logbook was assigned to) who makes an entry to the logbook should sign and date it.

Incorrect entries should be lined out and initialed by the inspector.

At the end of each day's activity, and at the end of an entry on a particular event, the inspector should draw a diagonal line at the conclusion of the entry and initial it. This will facilitate review of notes by the inspector and case development staff.

Entries in Field Logbooks

Since an inspector may be called to testify in an enforcement proceeding long after the inspection was conducted, it is imperative that each inspector keep detailed notes on every aspect of the inspection, including interviews, visual observations, records assessments, and sample collection and handling.

Entries in the logbook should correlate readily with particular samples, photographs, copies of records, or other documentation collected by the inspectors, such as by an assigned identification number. This will allow tracing back to the exact time, place, conditions, and procedures employed for gathering each piece of evidence.

Types of information that should be entered in the field logbook include:

- Identification Numbers. Each piece of evidence collected (document, physical sample, photograph) should be keyed to an entry in the field logbook.
- Observations. All conditions, practices, and other observations that will be useful in preparing the inspection report or will contribute to valid evidence, should be recorded.
- General Procedures. Inspectors should list all procedures followed involving entry, records inspection, and document preparation. Such information will help avoid damage to case proceedings on procedural grounds.

Confidential Business Information (non-TSCA)

Generally, inspectors should not collect confidential information unless it is important to the purposes of the inspection.

When an inspector expects to obtain or observe confidential information, he or she should maintain a separate logbook for notes on it.

If confidential information is entered into a logbook, the entire logbook must be treated as confidential. The cover and all pages containing confidential information should be marked "Confidentiality Claim."

Like any other confidential business information in an inspection file, access to the field logbook with confidential data is limited to those with appropriate authorization.

The procedures which follow for TSCA-CBI may be adapted by inspectors when dealing with confidential data under other statutes.

TSCA Confidential Business Information

TSCA provides safeguards for information claimed as TSCA confidential business information (TSCA-CBI) during an inspection.

When conducting an inspection under TSCA authority, inspectors should observe the following procedures to minimize problems that might arise regarding CBI entries into the field logbook.

Minimizing CBI Entries into Logbook

During discussions with facility officials, the inspector should avoid topics involving potentially confidential information not needed for completion of the inspection.

If information claimed or suspected to be claimed confidential is obtained (either orally or copied from facility records), such information should be referenced in a non-confidential statement in the field notebook and placed on separate sheets of paper that are then treated as documents. Photocopied documents should be referenced in the same manner.

- The non-confidential statement should state generally what information has been collected (i.e., "information about the firm's process for making chemical x").
- The separate sheets should be headed by the reference statement in the field notebook and identified by the name of the facility, date of inspection, and inspector's signature. The sheets should contain data only; no observations of extraneous notes should appear since the sheets will be reviewed by facility officials.
- The sheets are described as documents on the Receipt for Samples and Documents which is given to facility officials at the closing conference.
- The sheets can be reviewed by the facility officials during the closing conference and declared confidential, as appropriate.

It is recognized that the inspector will not always be able to make a prior determination about confidential business information before making entries into the field notebook, and that potentially confidential data may be included in the regular field notes. The intent here is to reduce, to the extent possible, such entries so that later difficulties regarding the field notes can be avoided. The procedures below describe steps to take if TSCA-CBI is entered into the field logbook.

Removing TSCA-CBI from Field Logbooks

In the event that confidential business information does appear in the logbook, those pages should be photocopied and the photocopied pages logged in with the Document Control Officer. The confidential business information in the logbook should then be obliterated in such a manner as to make it unreadable.

To ensure that the photocopies of the obliterated pages can be used in an enforcement proceeding, they must be carefully identified in the following manner:

- The inspector and a witness should initial and date a spot on the page that will not need to be obliterated.
- A photocopy of the logbook page should be made. This photocopy should be logged in by the Document Control Officer along with a statement by the inspector which reads:

  "The undersigned certifies that this is a true copy of a page from my field notebook from the inspection of (facility, address) on (date). The original notebook pages were obliterated by me to protect confidential business information."

  Inspector's Signature Date
  Witness' Signature Date

- Confidential business information on the logbook pages should be obliterated; the identifying initials and date should remain.

15B PHOTOGRAPHS

Seeing is believing! Since a judge and jury cannot be present on the inspection, the best way for them to see, and believe, what transpired is through photographs.

The enforcement of environmental law is dependent upon the effectiveness of inspectors as information-gatherers. Increasingly, photography has played an important role in that process. Photographs provide inspectors not only with visual documentation contributing to more accurate inspection reports, but also with evidence for enforcement proceedings and objective descriptions of conditions found at a facility.

Photographs are some of the best physical evidence, and the easiest to authenticate and therefore admit into evidence in court. The test is simply that the inspector has to say that any given photograph does "fairly and accurately represent" what the inspector saw on the date in question at the site in question.

When enlarged and placed in view in the courtroom, photographs can be the best means of duplicating what occurred months or years earlier during an inspection. Clear photos of relevant subjects, taken in proper light and at proper lens settings, provide an objective record of conditions at the time of the inspection. In this respect, photographs can be the most accurate demonstration of the inspector's observations.

Photographs can also be helpful to the field team during future inspections, informal meetings, and hearings.

For all its advantages, however, photography requires skill. The investment of time and materials in photography for the collection of evidence can be justified only by the quality and usefulness of the photographs. This section will assist the inspector in achieving the best photographic results.

Photographs as Evidence

Fair and Accurate Representation

Drawings, diagrams, maps, and plans have long been used as evidence of the buildings, lands, or machines they represent when the things themselves cannot conveniently be brought into court. Since the development of photography, photographs have generally been received as evidence on the same basis as maps and diagrams. It is essential to admissibility that the subjects which the photographs portray be relevant and material to the case. However, there must also be testimony that the photograph is a fair and accurate representation of the object or scene which it portrays. If the photograph is not a fair and accurate representation of the object or scene, even though the object or scene may be relevant and material, the photograph may not be admitted as evidence.

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Prejudicial Photographs

The question of admissibility is determined by the judge according to rules of exclusion applicable to other types or kinds of evidence. However, because photographs are traditionally susceptible to subjective misinterpretations, the courts have exercised a broader discretion in disallowing them as evidence.

Even though a photograph may be a fair and accurate representation of a relevant and material matter, the judge may reject it if in his or her opinion it would be misleading or would not aid the jury in a better understanding of the facts. Such a photograph, otherwise admissible, will be rejected if the judge believes that it may create an undue prejudice in the minds of the jury. For example, color pictures of human death or injury that show quantities of blood and gore can create an emotional reaction in the viewer that is in excess of that warranted by the probative value of the evidence. Photographs may be excluded for that reason.

Authentication

The authentication of a photograph prior to its being received in evidence may be accomplished by any witness whose familiarity with the subject matter of the photograph allows him or her to testify that it is a fair and accurate representation of the object or scene it portrays. The testimony of the person who took the picture is not necessary. If the photographer is called as a witness, it is not enough to simply claim to have taken the photograph. The photographer must also be able to say that the picture is a fair and accurate representation of the object or scene.

It is the fairness and accuracy of the representation that is important. Unless the processes and techniques of picture-taking, developing, and printing are themselves relevant to the question of accuracy, the judge may take judicial notice of such processes and techniques. This was not true years ago when photographs were first offered as evidence, and judges often required the testimony of the photographer as an expert witness to authenticate all photographs. Today the general principles of photography are well known as applications of the natural laws, and they are appropriately the subject of judicial notice. Most courts now accept that the central issue is the fairness and accuracy of the representation.

The Right to Photograph

The right to inspect gives rise to the inherent right to document the inspection by means of photographs. Inspectors should take photographs of anything needed to complete the objectives of the inspection. (Inspectors are cautioned not to take pictures of the inspection team at work, however. All such photographs might be subject to discovery should an enforcement action be pursued, and could hurt the government's case if they show even a slight error.)

Attempts to Impose Conditions

Photography often draws a negative reaction from facility officials, who may seek to prevent or limit the use of cameras on facility property. EPA considers such efforts to restrict the taking of photographs as an attempt to impose unacceptable conditions on consent to enter. If facility officials do not withdraw these attempts voluntarily and without coercion, the inspector should consider it a denial of consent and proceed according to pertinent guidance in the section on Consensual Entry, Chapter 7B.

Before concluding that the proposed restrictions on photography constitute a denial of consent, the inspector may tactfully attempt to resolve any concerns or objections facility officials raise about the use of cameras. It may be prudent to go ahead with the inspection without taking photographs, raising the issue with facility officials again only if a particular photograph is essential to completing the objectives of the inspection. Inspectors should be aware of the sensitivities involved in photographs, and avoid taking unnecessary photographs of facility operations. Sometimes in water cases it has been effective to explain to the officials that waste streams, receiving waters, and wastewater treatment facilities are public information, not trade secrets. Moreover, photographs may be taken without consent from areas generally open to the public, both outside and inside a facility.

Confidentiality

Under some environmental statutes (e.g., TSCA), photographs may be subject to a claim of confidentiality. To avoid difficulties arising from TSCA confidentiality claims, it is recommended that all unnecessary background be shielded when photographs are taken, or the subject may be moved to another area. In TSCA cases it is recommended that instant cameras be used, because the photograph can be shown to facility officials immediately. If an instant camera is not used and a confidentiality claim is made, the film must be processed by a contractor authorized for access to TSCA confidential business information.

Even where TSCA confidentiality is not involved, inspectors may find some of these practices helpful in resolving attempts by facility managers to restrict photography. Shielding the background, moving the subject, and use of an instant camera are methods that may allay the managers' concern about trade secrets.

Tips on Taking Photographs

When taking photographs, the inspector should imagine how the photographs will look in a courtroom. Photographs should always be taken with a view toward how they can be used as evidence. If the subject is a barrel, make sure the barrel fills up the view finder. If the subject is a building and grounds, then back off to allow these to fit into the viewfinder.

The most useful photographs are those that convince the viewer he or she is actually seeing the thing the inspector saw. A good photograph requires no explanation except the time and place it was taken. The viewer will gain confidence in the photograph if it is sharply in focus and properly exposed. To achieve such photographs, the inspector should learn to use camera equipment well.

Before going on an inspection, the inspector should be sure all equipment is in good working order and that supplies of film and batteries are adequate. Film is adversely affected by extreme temperatures, and care should be taken to avoid unsuitable storage conditions, such as an overheated vehicle. A small cooler can be used to store film on long trips. Fresh batteries are important since the newer automatic cameras will not work without batteries.

All photographs can be evaluated in terms of three qualities: focus, exposure, and composition. Each will be discussed below.

Focus

Sharp focus is mandatory in any photograph to be used as visual documentation of investigative findings. Camera wobble or shake can blur photographs. Therefore, carefully release the shutter, don't suddenly jab it. For shutter speeds below 1/100 second, try to rest the camera against a car or building. The subject matter of investigative photography often involves more than one relevant item in the scene, and it is necessary for all items of importance to be clearly represented in the photograph. The inspector must therefore strive not only for sharp focus, but also for the maximum depth of field.

Depth of field is the zone of acceptable sharpness of image (e.g. from 10-12 feet from the photographer) in the field of view. It varies as a function with focus distance and lens aperture selected. The depth of field increases as lens aperture decreases (e.g., from f5.6 to f11). The depth of field relationship to focus distance and aperture selected is shown for any lens by the depth of field scale on the lens barrel.

To minimize problems with a narrow depth of field it may be useful to use a higher ASA film (e.g., 400) so that a smaller lens aperture (f8-11) can be used.

Exposure

The most accurate way to determine exposure is through use of a light meter. Most 35mm cameras have built-in light meters. Without a light meter, the photographer must estimate the correct exposure from the sunlight available and film speed used. The film boxes generally suggest camera settings for various lighting conditions. It is always a good idea in all cases to take a series of photographs, using different settings each time (bracketing exposures).

Good exposure can usually be made on the high-speed films currently available. However, it may be necessary in certain situations to provide additional light by means of a flash. Flashbulbs or electronic flashes are used for this purpose. Now electronic cameras and flashes make "fill-in" flash relatively easy. The exposure and shutter speed for taking photographs with flash lighting (whether at night or "fill-in" flash during the day) is determined by referring to the tables in the data sheet accompanying the film, or on the flashbulb box, or in the instructions on the electronic flash unit. Camera exposure will also be influenced by extremes of white, black and by how much the main subject fills the viewfinder. If you want proper exposure for a subject, it should fill the viewfinder with little back light or other bright or dark objects to fool the light meter. Open the lens aperture 1 or 25 steps (f8 to 5.6) for white objects and close the lens (5.6 to 8) for black objects.

Composition

The effectiveness of any photograph as evidence is strengthened by careful arrangement of the elements in it. Here again the inspector should imagine how the picture will look on a final print. The composition is effective if the picture tells its story with a minimum of explanation.

Composition is largely a matter of personal judgment, but there are several guidelines that should be followed:

- Center of Interest - There should be only one major subject or center of interest in a scene. When taking the photograph, the inspector should eliminate or subordinate all secondary elements and focus on the main element. Be sure the subject actually fills the viewfinder.
- Simple Background - The background should be kept simple, so as not to distract attention from the main subject.
- Scale - If the subject is unknown or unfamiliar to viewers, the inspector should include some familiar object to indicate comparative size (e.g., a person, a car).
- Location or context - It is sometimes useful to photograph a subject from a point where the location of the subject will be clear in relation to other features.
- Motion - If action or movement is implied in the photograph, more space should be allocated in the direction of the action than away from it.
- Tones - If shooting in color, make sure the subject is tonally distinct from the background. The same applies to black and white, except imagine how tones will look when reduced to gray.

Documenting Photographs

In order for photographs to be entered as evidence, EPA must be able to authenticate that they fairly and accurately represent what the inspector saw at a given facility on a given date. (The inspector need not have taken the photo him- or herself, but must be able to testify that the photo "fairly and accurately" represents what he or she saw.) Documentation of information about how, when, and where the photograph was taken will aid in the authentication process.

An effective means for documenting photographs is keeping notes in chronological order in the field logbook about the pictures that are taken, Some inspectors keep a separate photo log in addition to notes in the logbook. Notes in the field logbook can be used to help refresh the witness' memory prior to testifying in court.

Even if the inspector does not remember what it is that the picture portrays, so long as he or she wrote these notes and can state that they are somehow connected with the picture, that information alone is enough to say that the picture does fairly and accurately represent what he or she saw on the day in question.

When an instant camera is being used, notes should be recorded on the back of each photograph, cross-referenced to the field logbook.

Minimum Documentation

Documentation for each photo or group of related photos should include the following information:

- The number of each picture;
- The date and time;
- Name of the facility and specific location on the premises;
- Lighting and weather conditions;
- A brief description of the scene, if necessary;
- The number(s) of related physical samples (if any); and
- Anything unusual about the way the photo was taken (e.g., use of special filters or lenses).

The photographer is not required to record the aperture settings and shutter speeds for photographs taken within the normal automatic exposure range. However, special lenses, films, filters, or other image enhancement techniques should be noted in the logbook.

Additional Documentation

In most situations, being able to reconstruct (through notes or other means) the minimum information stated above is sufficient documentation for photographs. However, some programs or photographs for specific evidentiary purposes may need additional documentation. For example, photographs of emissions for the stationary source air program require the following additional information to be documented:

- Description of film used (i.e., brand and type, expiration date, ASA number, origin, etc.);
- Type of camera and attachments;
- Focal length of the lens being used; and
- F-stop and shutter speed at which the camera is set.

Consult program-specific guidance for any special requirements regarding photograph documentation.

After the Inspection

Because photographs can be vital evidence in an enforcement case, inspectors should document them routinely as suggested in this chapter, and as near in time to their being taken as discussed in Chapter 8. Chain of custody procedures are not required, even for criminal cases, unless the camera is taking photographs automatically without a person present viewing at the same time what is being taken. In some cases, this may arise in some forms of aerial photography or clandestine surveillance activity. CBI-claimed photographs should be handled like anv other CBI information.

Logbook notations and receipts may be used to account for routine film processing. Once developed, slides or photographic prints should be numbered and identified corresponding to the logbook descriptions.

Instant photos (such as Polaroid) should be immediately identified on the back with the corresponding photo identification number. Photographs requiring developing and printing should be numbered as soon as possible. One method to ensure that all prints and negatives can be positively identified is to leave prints and negatives uncut, and photograph the photographic log at the beginning and end of each roll of film.

To aid in admissibility in court, inspectors should not deface the front of the picture, and any information necessary should be entered on the back or in attached documents.

Photographic Equipment

A mind-boggling array of cameras, lenses, filters, and other equipment is available to the photographer today. In choosing equipment, the inspector should be guided by his or her current knowledge of photography. The inspector who has been using the more sophisticated types of equipment would choose different cameras and lenses than the inspector whose experience is mainly with the simpler automatic cameras. The inspector should never use a camera that is beyond his or her skill and technical knowledge.

Cameras

The two key choices in selecting a camera are:

- Automatic vs. Adjustable - The automatic camera contains a built-in exposure meter that either automatically adjusts the lens aperture or shutter speed according to the light intensity of the scene being photographed. (Some also set the correct focus automatically.) The adjustable camera must be set by the photographer for varying light conditions and focus based on the reading of the light meter, e.g., match-needle systems.

- Instant vs. Conventional - The instant camera develops the film and produces a print immediately after a photograph is taken. This feature is useful for inspections because the photograph can be reviewed on the spot for intended content, and facility managers can be provided with a duplicate photograph immediately. This feature can allay managers' concern that confidential business information may have been photographed. Notes can be taken on the back of the picture while the inspector is still on the scene. The conventional camera requires processing of exposed film in a darkroom or photographic lab.

The best camera for general use on inspections is the 35mm single-lens reflex with automatic exposure.

Lenses

Most 35mm cameras have a family of lenses available which can be used interchangeably. They can even be changed between one photograph and the next, which gives inspectors the opportunity to take different versions of the same scene with different-sized images of the subject.

The simple single focal-length lens of 50-55mm size is standard on most 35mm cameras. Because its perspective most closely matches that of the human eye, lenses in this range are termed "normal focal length." Lenses with focal lengths of lower numerical value are termed "wide angle," and lenses with focal length of higher numerical value are termed "telephoto."

- Wide-angle Lens. The wide-angle lens is suitable for site and area overviews. However, this lens distorts perspective and distance. Also, because a wide-angle lens takes in a wider field of view, the apparent size of everything in the picture will be reduced. They are good to provide locating or context shots if you cannot back up very far.

- Telephoto Lens. The telephoto lens offers magnification of image size with a somewhat compressed perspective. The magnification increases the potential for loss of sharpness due to camera motion. A good rule for hand-holding a camera-telephoto lens combination is never to use a shutter speed slower than the inverse of the focal length of the lens e.g., 1/125 second for a 135mm lens. Use of a tripod and faster films are both beneficial for photography with telephoto lenses. When lighting conditions are bright and camera support is absolutely firm, telephoto lenses that fill the frame with the image of the subject can be used effectively.

- Zoom Lens. The zoom lens offers a continuous range of focal lengths in one lens. Some zoom lenses run from wide-angle to normal, some from normal focal length to telephoto, and some zoom lenses even offer a full range from wide-angle to telephoto.

Film

The film in the camera is the inspector's image-recording tool. The inspector must select the right type of film for the job, load it properly and expose it properly.

Films differ in speed, which refers to the film's sensitivity to light and thus its ability to capture images under different light intensities. A high-speed film can be used effectively in dim light, while a low-speed film cannot.

There is a tradeoff between film speed and the film's ability to capture fine detail. The following principles can be used in selecting the most appropriate film:

- Fast Film (ASA/ISO 200 or higher) - for situations where light levels are low or subjects are in motion. Fast film is also effective on overcast days and when subjects are dark in tone or color or if a telephoto lens is necessary. The drawbacks are that the faster the film speed, the less fine detail will be captured in the photograph. However, with advances in film technology, films of ASA 1600 can be used with little loss in detail due to grain.

- Slow Film (ASA/ISO under 200) - for situations of sufficient brightness and where the subject is stationary or slow-moving. Slow film should be used on sunny days and when subjects are average or above-average in brightness and when detail rendition must be excellent. A tripod or steady base is essential where lower light levels are involved, or when a telephoto lens is used.

A further choice must be made between color or black-and-white film. Black and white comes in a range of speeds although 400 is the most popular. If color is selected, a choice must be made between films that produce prints and those that produce transparencies (slides). Kodak color films can be distinguished by the ending of the film's brand name -- those ending in "chrome" are slide films, those ending in "color" are print films.

The best film for general use on inspections is high-speed color print film. "Color" film is more tolerant of incorrect exposure. High-speed films may be essential because photography under inspection conditions is often done with available light, usually marginal at best. Prints are favored because they can be shown without a projector and screen, multiple copies can be produced from negatives, and prints can be enlarged and distributed as needed.

It is advisable to keep in stock no more film than can be used within the recommended usage dates on the film container.

Exposure to x-rays, such as from airline security checkpoints (especially cumulative exposures), can cause loss of image in unprocessed films. If the film has already been exposed during an inspection, hours of work can be wasted. The damage occurs because x-rays expose film, and the later processed film will appear foggy, without contrast, or striated. Lead shield bags, available from photographic suppliers, are recommended when the inspector is carrying unprocessed film on air travel. Hand inspection of film can be requested. If this is planned, carry film in resealable see-through plastic containers.

Filters

Filters are useful for the enhancement of particular parts of photographs. Some filters reduce excess blue color cast, such as the blue of atmospheric haze or polluted air. Others minimize reflections off glass or water surfaces. Still others are used to help distinguish between objects, especially in black and white photography. The use of filters should be noted in the Logbook.

15C DRAWINGS AND MAPS

As the inspector records observations at a facility, some things prove difficult to describe in words or photographs, yet they may be essential to the story. These must be captured in visual notes such as drawings, maps, charts, and schematic diagrams. Such visual notes can be important evidence in court, and they are helpful in composing the inspection report.

Drawings and maps can provide graphic clarification of site location relative to the overall facility, the parameters of a spill or contamination, the relative height and size of objects, and other information which, in combination with samples, photographs, and other documentation, can produce an accurate, complete evidence package.

Formal maps, prepared by cartographic techniques and based on notes made in the field, are also required for some purposes.

All the forms of visual notes described here should be referenced in the field logbook at the time they are made. A drawing or sketch can be entered directly into the logbook itself; this integrates it clearly with other notes in chronological order.

Maps

A rough map drawn during the inspection can be a valuable piece of evidence. A judge or jury will hear many facts during a trial and may have difficulty remembering them. A map of the site provides a frame of reference onto which they may hang these otherwise forgettable facts. Even if it is necessary later to draw up a more presentable map, the original drawing corroborates what the inspector saw at a facility.

A map also helps the judge or jury form a mental picture of the facility through the eyes of the inspector. The layout of a facility can be hard to grasp when a person hears it described in words. Anyone who has tried to get around in an unfamiliar city knows the difficulty of learning a layout. A map helps the viewer across this hurdle.

Some types of maps the inspector may make are:

- General map of the facility;
- Map showing where photos and samples were taken;
- Map showing where potentially noncomplying situations were observed;
- Map showing the layout of a particular part of the facility on which the inspection focused major attention.

Sometimes a prepared map is used in the pre-inspection planning, to select sample sites or plan the inspection effort. It may be useful to take a copy of this map along on the inspection and enter notes on it to show where samples, photos or other observations were taken. Notes on this map should be cross-referenced to notes in the logbook.

Informal maps drawn by the inspector should be simple and free of extraneous details. Basic measurements and compass points should be included to provide a scale for interpretation. Maps should be signed and dated. If drawn separately from the logbook, each map should be numbered, signed and dated, and cross-referenced in the logbook at the appropriate point in the chronology.

Formal site maps prepared by cartographic techniques are often prepared for hazardous waste site investigations and some other investigations that may result in enforcement actions. The inspector should consult with program managers about the need for such mapping in a particular situation and about how to secure cartographic services.

Drawings and Diagrams

Schematic drawings, diagrams, charts, and other visual notes can be used to capture features that may not be clear in photographs.

Although not as accurate or credible as a photograph, such drawings are a good backup method where photography cannot do the job. Sometimes a photograph would contain so much detail that the crucial features are not clear or would require too much explanation. In such cases a good, simple schematic drawing or diagram can be useful.

The drawing or diagram can be drawn in the logbook, or on a separate sheet of paper if necessary and referenced in the logbook. The drawing or diagram should contain notations of the approximate dimensions of the subject. The level of accuracy of the drawing should also be noted (e.g., "estimated" or "measured with steel tape"). All such visual notes should be referenced to show where the subject was observed in the facility.

Sometimes a facility's own publications may provide helpful illustrations of the layout, conditions, and operations. Brochures, literature, labels, and other printed matter may be collected as documentation if the inspector believes they are relevant. All printed matter should be identified with the date, inspector's initials, and origin.

15D AERIAL IMAGERY

Aerial imagery is unique and distinct from the other forms of observation discussed in this chapter, but is frequently an invaluable supplement to field inspections. It records a great deal of detail that can provide a guide for other field measurements as well as historical documentation of conditions at the time of acquisition.

Aerial imagery is obtained and interpreted using state-of-the-art techniques to the extent justifiable for the intended use. Photographic interpretation is by its nature very subjective at times. When an interpretation is questionable, the opinions of several photographic analysts will be solicited. Environmental interpretation, where natural features are slightly modified by human influence, is much more subjective than military interpretation, where definite, man-made features are sought out. Therefore, where environmental interpretations are not clear-cut, they should be used only as tentative findings to be further verified or modified by subsequent field investigations.

Use in Court

Several limitations apply to photographic missions for the specific purpose of collecting evidence to be used in litigation:

- The military services cannot be used for such purposes;
- In most cases, a search warrant should not be needed to perform an overflight. However, if there is already a court injunction against EPA, or the case is already in litigation, consult the Regional Counsel for a recommendation on the need for a search warrant.

The following more general-purpose imagery can also be used in litigation, subject to the guidance of the Office of Regional Counsel:

- Imagery or overlays prepared from imagery acquired by the military, or anyone else, for other purposes (e.g., for broad-area mapping or inventorying, routine missions clearly not connected with the litigation, etc.).
- Archival imagery antedating the litigation in question.
- "Targets of opportunity," such as a stack putting up dense smoke, an unusual discharge from an outfall, etc., which are photographed while on a mission for another purpose or for general surveillance. (This is equivalent to stopping at the side of a road to photograph a suspected violation of any law.)

Requesting Services

All requests for aerial imagery and other remote sensing services are coordinated through the Regional Remote Sensing Coordinator or equivalent official if there is no designated coordinator. The coordinator makes appropriate contacts with the Remote Sensing Branch, Environmental Monitoring and Support Laboratory, Las Vegas, Nevada; with the Environmental Photographic Interpretation Center (EPIC) in Warrenton, Virginia; and with others as necessary. The coordinator will arrange for direct follow-up contacts between the requestor and the group to provide the service, if this is desired. All Enviropod activities will be under the administrative direction of the Regional Remote Sensing Coordinator. However, to the extent practical, efforts will be made to involve the user of the imagery in the missions for acquiring it.

Interpretation of photographs and other imagery generally is the responsibility of the individual program, although some limited assistance may be available from the Remote Sensing Coordinator.

In general, each program requesting remote sensing services will have to pay, from either national or Regional funds, for necessary flight time, film and processing costs, and interpretation and preparation expenses. Costs can often be minimized by the Remote Sensing Coordinator by combining missions, locating archival imagery, and by using limited Office of Research and Development funds as they are available. The Remote Sensing Coordinator will arrange for cost estimates as needed.

The Enviropod will be installed and operated by personnel familiar with the detailed instructions for installation. Mission planning should be done using appropriate nomograms supplied by EPIC or with the HP-97 Enviropod Program. All flight lines should be logged on a data sheet. After exposure, film and log sheets should be promptly shipped to EPIC at Vint Hill Farms in Warrenton, Virginia, for processing.

All film is processed using the manufacturer's recommendations for temperature, time, and density of solutions. At the end of each Enviropod mission approximately eight or ten frames should be exposed for trial development for EPIC to determine whether adjustments must be made in processing rates or temperatures to obtain a clear image. These should be noted on the log sheet with notes on lighting and weather conditions. Enviropod personnel at EPIC should be contacted before each mission (or monthly, whichever is less frequent) to determine current experience and recommend f-stop settings for various cloud covers and atmospheric conditions.

CHAPTER 16

CLOSING CONFERENCE/TRAVEL SECURITY MEASURES

A closing meeting with facility officials, discussed in Chapter 16A, completes the on-site inspection activities. At this meeting, inspectors provide receipts, resolve remaining issues, and answer facility officials' questions. Because of the potential to jeopardize potential enforcement actions, inspectors must be extremely careful in making any statements about what they discovered regarding compliance.

Once the inspector leaves the site, he or she may be on the road for several days before returning to the office with inspection data. Chapter 16B describes the measures that should be taken to assure the security of this information while the inspector is traveling.

16A CLOSING CONFERENCE

A final meeting with facility officials will enable the inspector to "wrap up" an inspection. During this meeting, receipts can be prepared, questions can be answered, and information gaps can be resolved.

Responding to Questions on Inspection Results

Facility officials will understandably be interested in what the inspector found out about the facility's compliance. This is a sensitive area legally, so it is critical that the inspector be very careful in what he or she says. Following are acceptable ways of handling two common questions raised by facility officials.

"Did you find any violations?"

If asked if any violations were found, the inspector may point out various items that facility officials might want to re-check for compliance purposes. However, EPA inspectors are never authorized to say that "everything checks" or "there are no violations."

- The most that any inspector can indicate is that he thinks that he did not discover matters that he personally felt were violations of law or regulations except certain items about which an "institutional" EPA decision has not yet been made.

There are several reasons why the inspector should not offer seemingly final conclusions regarding the facility's compliance status:

- The inspector has not had time to reflect upon and correlate all that he has observed.
- Laboratory analyses may not have been completed.
- The intricacies of EPA-administered statutes and regulations do not lend themselves to "off the cuff" assessment.
- The inspection findings may only represent a portion of the enforcement case.

Additionally, should the facility later be informed that the inspection did substantiate a finding of violation, facility officials are likely to insist that the EPA inspector stated "no violations" at the time he left the premises, and therefore question the final assessment.

[Note: Some EPA programs are developing experimental programs in which inspectors can issue citations for minor violations while still at the inspection site or shortly after their return to the office. Follow program guidance on these matters.]

"Can I see (or copy) your notes?"

Facility officials may assert that they have the right to see -- or copy -- notes made by EPA inspection personnel. Although they may submit a Freedom of Information Act (FOIA) request, which the Agency must respond to within 10 days, Agency policy is not to permit "viewings" on-site or in the absence of an FOIA request.

Receipt for Samples

Some EPA statutes require that the inspected facility be given a receipt for all samples taken. Practice varies, but documents and other evidence may also be included on the receipt.

The receipt should describe each item and its point of origin and be signed and dated by the inspector. To be included on the receipt are:

- A description of all physical samples taken.
- A description of all records, photographs, or other property taken. This is particularly crucial when inspecting with a warrant.

The purpose of this detailed receipt is twofold:

- To protect the Agency by showing that facility officials knew exactly what was taken.
- To allow full review by facility officials of the material and information collected so that confidentiality claims can be made.

Confidentiality Claims

Some information may have been declared confidential during the inspection itself. These items should be reviewed and confirmed with facility officials.

Facility officials should then review the completed Receipt for Samples (if prepared) and make any further claims. Even when no receipt is required, inspectors should be sure that facility officials understand their right to make confidentiality claims.

(If the inspection was conducted under TSCA authority, all items claimed confidential must be listed on the Declaration of Confidential Information form. See TSCA Base Inspection Manual for additional procedures.)

Industry Outreach

Since the inspector is often the only contact between the Agency and the regulated industries, he or she should be aware of opportunities to maintain and improve Agency-industry relations. The closing conference provides an ideal opportunity to offer various kinds of help to facility officials. The inspector will have just completed an inspection, and will have first-hand knowledge of questions, problems, and ways to help overcome them.

In this role, the inspector should be careful, however, to answer only those questions that are within his or her ability or authority. The inspector should in no case recommend that a particular step should be taken to address a problem. Such advice may be wrong, and if the facility is later found to be in noncompliance, EPA's ability to pursue an enforcement action would be jeopardized. The inspector can offer or suggest resources that are available to facility officials to help overcome problems (e.g., technical publications, special services).

Inspectors should refer questions and problems to other EPA personnel as needed, and follow-up with those personnel when practical to see that facility officials receive a response.

EPA
United States
Environmental Protection
Agency

RECEIPT FOR SAMPLES AND DOCUMENTS

Name of Firm

Firm Address

Inspector Name

Inspector Address

Name of Individual

Title

Date Collected

Duplicate Samples Requested and Received
( ) Yes ( ) No

Sample Numbers

The documents and samples of chemical substances and/or mixtures described below were collected in connection with the administration and enforcement of the Toxic Substances Control Act.

Receipt for the document(s) and/or sample(s) described is hereby acknowedged:

Signature of Inspector

Signature of Owner, Operator, or Agent

Title

Title

Receipt for Samples and Documents

1. Enter Inspector's name (1) and EPA office address (2).

3. Enter name (3) and complete address (4) of the firm being inspected.

5. Enter the name (5) and title (6) of the individual receiving this Receipt.

7. Enter the date of collection of the samples and documents listed on the Receipt.

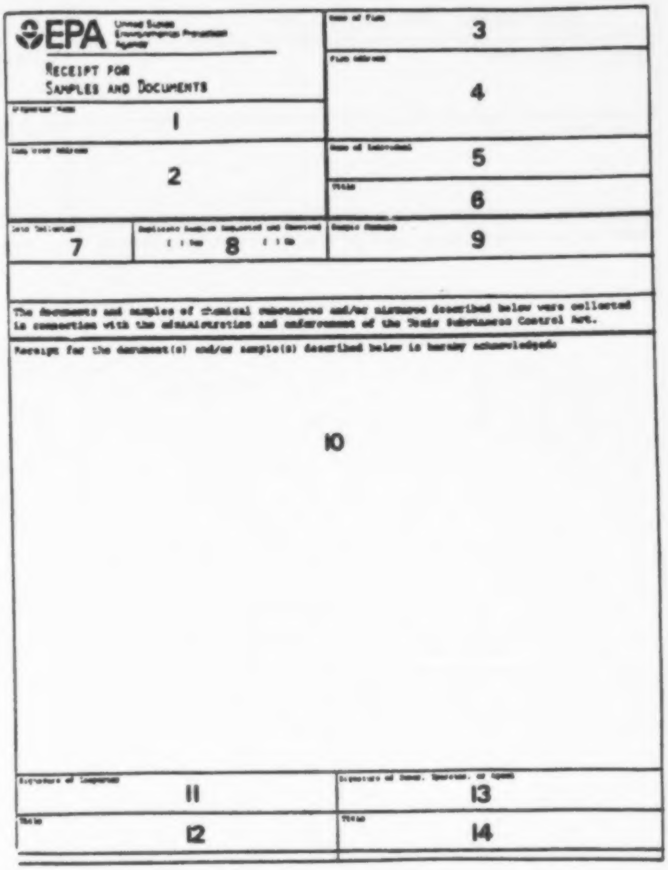
8. Check the appropriate column if duplicate samples were requested and received.

9. List the sample numbers of all samples taken.

10. List by title or description all samples and documents taken during the inspection.

11. Sign (11) and date (12) the Receipt.

13. Have the facility official named in (5) sign (13) the Receipt and list his/her title (14).



EPA

RECEIPT FOR SAMPLES AND DOCUMENTS

1

2

3

4

5

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8

9

The documents and samples of chemical substances and/or mixtures described below were collected in connection with the administration and enforcement of the Toxic Substances Control Act.

Receipt for the document(s) and/or sample(s) described below is hereby acknowledged:

10

11

12

13

14

DECLARATION OF CONFIDENTIAL BUSINESS INFORMATION

EPA United States Environmental Protection Agency

DECLARATION OF CONFIDENTIAL BUSINESS INFORMATION

EPA Regional Office Address	
Date	
Name of Individual	Title
Firm Name	Firm Address

Information Designated as Confidential Business Information:

Acknowledgment by Claimant

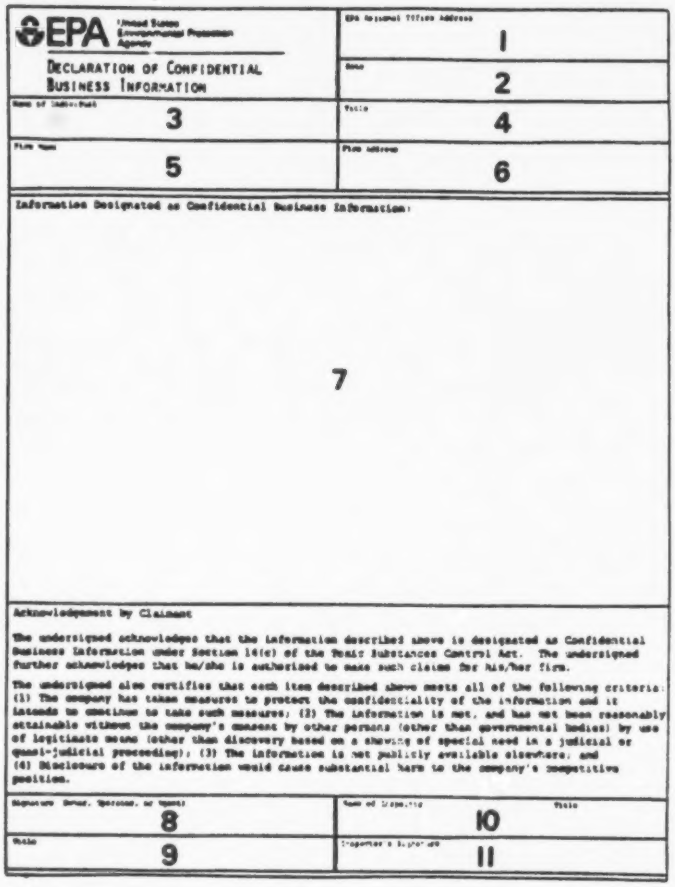
The undersigned acknowledges that the information described above is designated as Confidential Business Information under Section 14(c) of the Toxic Substances Control Act. The undersigned further acknowledges that he/she is authorized to make such claims for his/her firm.

The undersigned also certifies that each item described above meets all of the following criteria: (1) The company has taken measures to protect the confidentiality of the information and it intends to continue to take such measures; (2) The information is not, and has not been reasonably attainable without the company's consent by other persons (other than governmental bodies) by use of legitimate means (other than discovery based on a showing of special need in a judicial or quasi-judicial proceeding); (3) The information is not publicly available elsewhere; and (4) Disclosure of the information would cause substantial harm to the company's competitive position.

Signature (Owner, Operator, Agent)	Name of Inspector Title
Title	Inspector's Signature

Declaration of Confidential Business Information

1. Enter the complete EPA Regional Office address.
2. Enter the date of this declaration.
3. Enter the name(3), title (4), official firm name (5), and complete firm address (6) of the individual making this declaration.
7. List by title or description all information begin designated as confidential business information.
8. Have the individual making the declaration sign (8) and list his/her title (9).
10. Enter the name and title of the Inspector
11. Sign the Declaration (Inspector).



EPA United States Environmental Protection Agency

DECLARATION OF CONFIDENTIAL BUSINESS INFORMATION

	EPA Regional Office Address 1
	Date 2
Name of Individual 3	Title 4
Firm Name 5	Firm Address 6

Information Designated as Confidential Business Information:

7

Acknowledgement by Claimant

The undersigned acknowledges that the information described above is designated as Confidential Business Information under Section 14(c) of the Toxic Substances Control Act. The undersigned further acknowledges that he/she is authorized to make such claims for his/her firm.

The undersigned also certifies that each item described above meets all of the following criteria: (1) The company has taken measures to protect the confidentiality of the information and it intends to continue to take such measures; (2) The information is not, and has not been reasonably attainable without the company's consent by other persons (other than governmental bodies) by use of legitimate means (other than discovery based on a showing of special need in a judicial or quasi-judicial proceeding); (3) The information is not publicly available elsewhere; and (4) Disclosure of the information would cause substantial harm to the company's competitive position.

Signature (Owner, Operator, or Agent) 8	Name of Inspector — Title 10
Title 9	Inspector's Signature 11

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16B SECURITY MEASURES WHILE TRAVELING

Security measures must be taken to protect all inspection data (including documents, samples, field notes, and other documentation) collected by the inspector. The information must be protected because:

- The very nature of an enforcement investigation assumes the possibility that some legal action might result.
- Any inspection involves the collection of information that a firm would not ordinarily make available to outsiders.

In addition to the routine security measures that are always taken with regard to inspection data, the declaration of certain information as TSCA Confidential Business Information (TSCA-CBI) imposes a further layer of security procedures designed to control access to the information within the Agency.

Protecting security while traveling presents some unique problems. Routine security measures and the additional procedure for TSCA-CBI while on the road are discussed below.

The main objective of the security measures is to ensure that reasonable precautions are taken to prevent unauthorized persons from viewing the information. When practical circumstances prohibit the inspector from following the procedures exactly, the inspector is expected to take steps for protection of the information that will achieve this objective.

Routine Security Measures

The inspector may be on the road for several days while doing inspections. It is his responsibility to ensure that the information he collects is handled securely.

- Documents and field notes are considered secure if they are in the physical possession of the inspector and not visible to others while in use. For example, it is permissible to review documents in the privacy of a motel room or motor vehicle, but not acceptable to review them in a public place such as a restaurant.
- Inspection documents contain sensitive information and should be kept in a locked briefcase. If it is impractical to carry the briefcase into a given situation, the briefcase may be stored in a locked area such as a motel room or trunk of a motor vehicle.
- Physical samples should be placed in locked containers and stored in a locked portion of the motor vehicle. The chain of custody procedures provide further protection for ensuring the integrity of the sample.
- If shipping is not feasible immediately, the samples should be stored in a locked container inside a locked portion of the motor vehicle.

TSCA-CBI Security Measures

Because of the difficulties in protecting TSCA-CBI while traveling, it is recommended that such information be mailed, shipped, or hand delivered to an authorized person as soon as possible after the inspection.

- Documents and other "paper" data should be mailed or hand carried to the Regional Document Control Officer.
- Physical samples should be shipped or hand carried to an individual in the laboratory who is cleared for access to confidential information.

Handling of Documents

- As soon as they are declared confidential, documents or papers should be marked "Confidential Business Information" and placed inside an envelope also marked "Confidential Business Information." This envelope is placed inside a plastic envelope addressed to the Regional Document Control Officer and mailed immediately.
- If mailing is not feasible immediately, the double envelope should be placed inside a locking briefcase. The double envelope is required during this interim period to prevent others from seeing that the inspector is carrying "Confidential Business Information" should he open his briefcase.
- The locked briefcase must be kept in the sight of the inspector at all times. If it is totally impractical to carry the briefcase into a given situation, the briefcase may be stored in a key-locked area for which the inspector has control of the only key. The inspector would be expected to take the briefcase into a restaurant, but not into another facility inspection. Briefcases should not be left unattended in a motel room.
- If it is necessary for the inspector to review the document, this can only be done in absolute privacy because the "Confidential Business Information" marking is likely to arouse curiosity. If privacy is violated, the documents must be shielded from view immediately.

Handling of Physical Samples

- Physical samples declared confidential should be marked "Confidential Business Information" on the seal and the same mark should be placed on the chain of custody report. The sample and chain of custody report should be shipped or delivered immediately to an individual in the laboratory who is known by the inspector to be cleared for confidential.

CHAPTER 17

REPORTS AND FILES

The ability of the Agency to make an appropriate decision with regard to whether and what level of enforcement action should be taken is largely dependent on the quality and content of the inspection report and the official inspection file.

Section 17A discusses the elements of a good inspection report, provides tips on writing the report, and concludes with a generic outline that can be used in preparing a narrative inspection report. Section 17B discusses the contents of the official inspection file and security measures for safeguarding inspection data in the office.

17A THE INSPECTION REPORT

The results of all work done by an inspector are finally expressed in some form of written report. Although one measure of an inspector's success in enforcement is the quality of his reports, many inspectors do not appreciate the importance of report writing. Proper documentation of an inspection is a key aspect of an inspector's job. Government officials and attorneys who review the report must have all the facts to make appropriate and effective decisions. Well-written reports create an impression of a well-conducted inspection, and facilitate the report review and decision-making process. As one senior enforcement official stated it: "The quality of your inspection reports can make or break your career."

The purpose of the inspection report is to present a factual record of an inspection, from the time when the need for the inspection is perceived through the analysis of samples and other data collected during the inspection. An inspection report must be complete and accurate, because it will provide the basis for potential enforcement actions and may become an important piece of evidence in litigation. The length and format of inspection reports may vary based on program and individual office policy and practice.

The objective of an inspection report is to organize and coordinate all evidence gathered in an inspection in a comprehensive, usable manner. To meet this objective, information in an inspection report must be:

- Accurate. All information must be factual and based on sound inspection practices. Observations should be the verifiable result of first-hand knowledge. Enforcement personnel must be able to depend on the accuracy of all information.
- Relevant. Information in an inspection report should be pertinent to the subject of the report. Irrelevant facts and data will clutter a report and may reduce its clarity and usefulness.
- Comprehensive. The subject of the report (i.e., any suspected violations) should be substantiated by as much factual, relevant information as is feasible. The more comprehensive the evidence, the better and easier the prosecution task.
- Coordinated. All information pertinent to the subject should be organized into a complete package. Documentary support (photographs, statements, sample documentation, etc.) accompanying the report should be clearly referenced so that anyone reading the report will get a complete, clear overview of the subject.
- Objective. Information should be objective and factual; the report should not draw conclusions.
- Clear. The information in the report should be presented in a clear, well-organized manner.
- Neat and Legible. Adequate time should be taken to allow the preparation of a neat, legible report.

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Inspection reports are normally prepared by the inspection team leader, with the assistance of the inspection team members. After an inspection has been completed there is a psychological letdown. Reporting what happened during the inspection may then seem a burdensome chore, but the inspector's job is not finished until the report is complete and the official files are in order. Remembering the simple rule that "no job is complete until the paperwork is finished" will assist the team in planning and conducting the inspection so that the report will accurately portray the findings of the inspection. Recall also, as discussed in Chapter 8, that unless the report is prepared routinely and contemporaneously with the inspection, it may not be used to refresh recollection or be admissible as evidence.

Elements of an Inspection Report

No single standard EPA inspection report format exists; the specific information needs will vary depending on the program and regulatory requirements involved. While the format and exact contents of the inspection report vary, the report should always contain enough information that the reader can determine the following:

- The specific reason for the inspection;
- Who participated in the inspection;
- That all required notices, receipts, and other legal requirements were complied with;
- What actions were taken during the inspection, including the chronology of these actions;
- What statements, records, physical samples and other evidence was obtained during the inspection
- What observations were made during the inspection; and
- The results of sample analyses related to the inspection.

Although the specific information requirements in a given inspection report will depend on the type of inspection and what was found, most reports will contain the same basic elements:

- Inspection Report Forms
- Narrative Report
- Documentary Support

Inspection Report Forms

Individual inspection report forms, developed for most regulatory programs, are designed to collect standard, reviewable information about an inspection. Inspection report forms are only one aspect of a complete report and should by no means be considered to be sufficient documentation of the inspection in themselves. They function as guides to ensure that all basic data are being collected, and are generally completed as the inspection progresses. Individual items on these forms often need clarification and elaboration; inspectors normally use the field logbook for this information.

In cases where inspection report forms are unavailable, inappropriate, or not comprehensive, the inspector should record pertinent information in the field logbook. This information should be used in the narrative of the Inspection Report to clarify and expand upon the information from the Inspection Report Forms.

Narrative Report

The narrative portion of an inspection report should be a concise, factual summary of observations and activities, organized in a logical, legible manner, and supported by specific references to accompanying evidence (documentary support). A work plan will simplify preparation of the narrative and will help ensure that information is organized in a usable form. Basic steps involved in writing the narrative report include:

- Reviewing the information
- Organizing the material
- Referencing accompanying material
- Writing the narrative

Reviewing the Information. The first step in preparing the narrative is to collect all information gathered during the inspection. The inspector's field logbook and all Inspection Report Forms should be reviewed in detail. All evidence should be reviewed for relevancy and completeness. Gaps may need to be filled by a phone call or, in unusual circumstances, a follow-up visit.

Organizing the Material. Organization of the information can take many forms, depending on the case, but should present the material in a logical, comprehensive manner. The narrative should be organized so that it will be understood easily by the reader.

Referencing Accompanying Material. All evidence (e.g., copies of records, analytical results, photographs) that accompany a narrative report should be clearly referenced so that the reader will be able to locate them easily. All support documents should be checked for clarity prior to writing the report.

Writing the Narrative Report. Once the material has been reviewed, organized, and referenced, the narrative can be written. The purpose of the narrative report is to record factually the procedures used in, and findings resulting from, the evidence-gathering process. In this report, the inspector should refer to routine procedures and practices used during the inspection, but should describe in detail facts relating to potential violations and discrepancies. The field logbook is a guide for preparing the narrative report.

If the inspector has followed the steps presented in this manual, the report can develop logically from the organizational framework of the inspection. In preparing the narrative, simplicity should be a prime consideration:

- Use a simple writing style; avoid stilted language.
- Use an active, rather than passive approach (e.g., "He said that ..." rather than "It was said that...").
- Keep paragraphs brief and to the point.
- Avoid repetition.
- Proofread the narrative carefully.

Note Regarding Standard Operating Procedures. When the inspector has followed Standard Operating Procedures (SOPs) precisely in gaining entry, taking samples, etc., this can be easily noted in the report (e.g., "following standard procedures, Joe Smith gained entry to..."). If there were any unusual circumstances or deviations, however, these should be included in the report in more detail.

Confidentiality Considerations and Procedures

All documents and other materials that have been declared confidential business information by facility officials must be handled according to the security measures that have been established for such materials. Confidential information includes not only the materials themselves, but also any reports -- such as inspection reports -- generated on the basis of confidential information. Generally, this will involve limiting access to the report to the fewest number of people possible.

In preparing the inspection report, it may be possible to reference confidential material in a non-confidential way, such as by providing a general description of the information and a reference number to the confidential documents. An alternative is to include the information in the inspection report but treat the entire report as a confidential document.

Especially stringent security requirements apply to documents or reports containing TSCA-CBI. See the TSCA Base Inspection Manual for detailed procedures.

Conclusions Regarding Compliance

Inspection reports should contain only the facts about the inspection. Clearly, however, the inspector's conclusions and opinions about the compliance of the facility are the critical factors (and often, the only factors) in the Agency's decision as to whether a violation did or did not exist. It is essential, however, that the inspection report itself not include the inspector's conclusions regarding compliance.

In writing the inspection report, avoid using the word "violation," which means a conclusion of law has been drawn. It is acceptable to state facts, such as: "The permit limit is x. I found y, which exceeds the limit by z."

Conclusions should be contained in a separate cover memorandum or other format that is clearly separate from the inspection report and passed up the management chain along with the factual inspection report.

The principal reason for this is that if an enforcement case is pursued, the entire inspection report is subject to discovery by the opposing side. If conclusions of law and opinions are in the report, which must be shared, the opposing side might be able to weaken the inspector's credibility by suggesting bias. Or, the inspector may have been wrong about one or more counts and the Agency did not pursue them; this would be revealed through discovery, again weakening the inspector's credibility.

A separate findings or conclusions memorandum will usually be protected from discovery based on attorney-client privilege or another exception rule.

In some programs, it may be the inspector who determines whether a violation occurred and if an enforcement action is warranted. In these situations, the inspector is no longer performing an inspector function; he or she has actually "changed hats" into a different job -- that of a case development officer. The line between the two jobs should be clearly drawn, with the person staying in a fact-finder role while carrying out inspector functions -- including inspection report writing.

Tips for Writing an Effective Inspection Report

This section presents guidance in preparing effective inspection reports. The style of these reports should be clear, concise, accurate, factual, fair, complete, and logical. Inspection reports should not contain flowery phrases, levity, superlatives, or unnecessary verbiage. Remember, the purpose of an inspection report is to convey the facts determined during an inspection to a reader whose course of action will depend upon its contents. This communication is not complete until the reader understands precisely what was intended and is willing to take action. To provide this communication, a report must be readable and must inspire confidence in the reviewers. Written communication does not have the advantages of facial expressions, voice tones, or gestures to get a message across and to interpret how it is being received. Therefore, the report must be written so as to eliminate the possibility of erroneous conclusions, inferences, or interpretations. It will become part of the permanent records for the inspected facility, along with the inspector's field logbooks, samples, formal statements, photographs, drawings, maps, printed matter, mechanical recordings, electronic recordings, and copies of records. A well-written report will serve as a summary of these other records.

In general, three rules apply to preparation of good inspection reports.

- Write to express, not to impress. Just relate the facts and evidence that are relevant to the compliance situation; don't tell about the inspection.
- Keep it simple. Organize complicated matters and state them in simple, direct terms.
- Keep the reader in mind. Relate your writing to the reader's experience and use words that are likely to be familiar.

The following sections provide a summary of the essential elements of good reports and organizing the writing process.

Essentials of Good Reports

Fairness, accuracy, completeness, conciseness, clarity, and organization are all essential characteristics of well-written and effective inspection reports. Prepare the report with these characteristics in mind, and keep them in mind during each phase of reviewing and rewriting. Although, by themselves, these characteristics will not ensure a well-written report, they are essential.

- Fairness. Inspection reports must be entirely objective, unbiased, and unemotional. Avoid distortion by being aware of the emotional tone of words. For example, note the difference in implication between "planning" and "scheming." Rumors or gossip should be included only if it is material to the inspection and is clearly identified as hearsay. If you can quote someone exactly, do so; otherwise, paraphrase the statement as accurately as possible. A report may mention a person's race, religion, or political persuasion only if it is relevant and material. Never make offensive remarks or use offensive slang in making reference to anybody's race, religion, or ethnic origin.

- Accuracy. Be exact. Say precisely and accurately what you mean to say in plain language. Precision depends on diction, phrasing, and sentence structure. Avoid exaggerations. One small exaggeration may cast doubt on the accuracy of other statements in the report. For example, do not state that something was obvious; just state the facts. Omit opinions, conclusions, and inferences. (Opinions may be expressed in rare circumstances to clarify meaning, but they should be clearly identified as nonfactual information. For example, "this act indicated his knowledge" is a conclusion and should be clearly identified as such.) The report should present facts so clearly that there is no need for conclusions or interpretations.

  State facts so that inferences can be drawn from them, but do not let inferences replace facts. For example: If you saw someone loading bags marked "toxic chemicals," do not write that you saw a person loading toxic chemicals. You only saw someone loading bags marked toxic chemicals. A frequent error found in reports is to substitute the word "signature," which by definition means signed by.

  Inference: The compliance reports were signed by John Doe.
  Fact: The compliance reports were signed, "John Doe."

  Avoid superlatives. Any attempt to strengthen a report in this way actually weakens it, as reviewers tend to doubt its objectivity.

  Accuracy means truthfulness. The accuracy of all findings and computations must be verified before the final report is submitted. A typographical error in date or time may cast doubt on other facts in a report.

- Completeness. Include all information that is relevant and material. Completeness implies that all the known facts and details have been reported, either in the text of the report or in an exhibit, so that no further explanation is needed and the reviewer will be convinced that the inspection was thorough and comprehensive. Include in the body of the report only those parts of exhibits that are material to the inspection and are necessary to give the reader a complete understanding of the compliance matter involved. Exhibits should contain complete statements or data.

- Source. Always report the source of evidence. When possible, make inspection reports interview-oriented (i.e., report statements made by interviewees). For example, do not say that the exhaust stack was black if you did not see it. Write, "John Jones said that the exhaust stack he saw was black." Explain how the interviewee acquired the knowledge you are reporting, and tell how you obtained the information.

- Exhibits. The report should be complete in that it is one single document. Original or duplicate copies of laboratory reports, affidavits, correspondence and other documents should be submitted as exhibits to the original report. These exhibits should be consecutively numbered in the order that they are mentioned in the body of the report. Exhibits are best introduced parenthetically. For example, "J.M. Dale told me (Ex. 1, Statement), I do not ...."

- Testing Completeness. Test the report to ensure that it answers the questions who, what, how, when, where, and why related to the compliance situation.

  - The first time they are mentioned in a report, all individuals should be identified completely by their first, middle and last names. If the person has no middle name or initial, indicate this by the use of (NMN) or (NMI) between the first and last names.

  - The report should clearly indicate what happened and how it happened, no more and no less. The chronology of occurrences should be stated clearly. The report also should indicate the date and time the happening occurred or an approximation if the exact time is unknown. Do not place the date or time in the middle of a sentence, as this causes ambiguity. The date and time an event occurred should be placed either first or last in a sentence, as appropriate.

  - The location of the occurrence should be identified as a definite place, to the exclusion of all other places. The place should be so clearly identified that no confusion or misinterpretation is possible.

  - Why a situation occurred is particularly significant with respect to violations where intent is an element of the offense. In such cases, the report should set forth the facts bearing on intent with such clarity that there is no need for conclusions or opinions within the report.

- Conciseness. Conciseness does not mean omission. It is the avoidance of all that is elaborate or not essential. Conciseness is not what you say, but how you say it. Conciseness means omitting unnecessary words; it does not mean omitting facts, detail and necessary explanation. It is not the same as brevity. If clarity and completeness require a detailed explanation, do not hesitate to use it.

  Readers like short sentences and short paragraphs with plenty of white space in between. Remember that all sentences in a paragraph are related to each other and express a unit of thought. Use tables to describe a group of items having similar characteristics. Results of sample analyses, observation times, records' inspections, and similar information should almost always be reported in table form.

Write plainly. Use active verbs whenever possible. The active voice gives force to writing. If you write like you talk, you probably will avoid excessive use of the passive voice. Do not write, "A low drive was hit by Eddie Murray." Instead, use the active voice, like you talk: "Eddie Murray hit a low drive."

Avoid repeating the same material in several sections of the report. Also, avoid redundant phrases such as: repetitive and redundant, approve and accept, null and void, part and parcel, ways and means, basic essentials, disappear from sight, while at the same time, revert back, pure and simple, and gross exaggeration.

- Clarity. Inspection reports must be written clearly to avoid misinterpretations. Clear writing leads to clear thinking and vice versa. Order your thoughts; select those most useful to the reader; arrange them logically; and select the words that will best convey your thoughts to the reader.

Everything in the report must be relevant and essential to the main purpose of the report, and its relevancy and material nature must be evident to the reader. Each sentence, paragraph, and division or part must represent a unit of thought and help establish the main point of the report; which usually is an alleged violation of the law. The unity of the report is enhanced by the use of topic headings, especially for major parts of the report. Such headings should succinctly describe what is contained in the particular part of the report.

The careless use of personal pronouns is a frequent cause of ambiguity. If the use of a pronoun may result in ambiguity, use a noun. Avoid the use of the pronoun "It" and the word "There" as substitutes for precise word selection. For example, say "We should do ...", rather then "It should be done ...", and "Changes have been made ...", rather then "There have been changes."

Use specific and concrete expressions rather than general or abstract statements. Poor writing often reflects a failure to select words which paint a clear mental picture. If you write that you took three water quality samples, the meaning is not clear. But if you write, "I took one effluent sample from Station E-1, one groundwater sample from station G-1, and one sample from a nearby river at station R-1," the reader understands clearly.

Although in English grammar classes we have been taught to use ingenuity and imagination, to be original, and to avoid repeating the use of the same words in our writing, inspection reports are not essays or literary works. If necessary, repeating use of a word or sentence structure is acceptable, if this uniformity increases clarity. Remember, the purpose is to communicate clearly, not to entertain.

Punctuate to make the meaning easy to understand. For example, consider the different meanings of the following three sentences: The employee said the foreman is a blockhead. The employee said, "The foreman is a blockhead." "The employee," said the foreman, "is a blockhead."

In presenting a series of thoughts or actions, parallel construction helps clarify meaning. For example, write "collecting, depositing, and reporting revenue", instead of "collection, depositing, and the reporting of revenue."

- Organization. An inspection report should be structured to allow a logical order and coherence in the presentation of facts. This means that the relation of each event to the main idea and to the events immediately preceding it in the report must be unmistakable. Otherwise, it is quite likely that the reader will not understand the significance of the event. Since the report writer cannot insert his conclusions or lead the reader by drawing inferences, he must depend upon facts that are so clearly stated and so logically arranged that the reader is certain to understand. Each violation, event, or circumstance should be narrated in full before the writer passes on to the next facet of the report. Most reports about criminal violations, for example, begin with the gist of the crime. Then they present the pertinent evidence of the alleged violator's connection with the violation.

  Often, the events that occurred are reported in chronological order (the order in which they occurred). However, in some instances the significance of each event or item of evidence may be understood better by some other arrangement. Usually, all evidence from a single source should be presented before introducing information from another source.

  In any report some facts and events are more important than others, and the writer wants to emphasize them so the reader is certain to notice them. In an inspector's report this cannot be done by comments of the writer, but it can be accomplished by careful selection and placement of words, phrases, and paragraphs, and by priority of organization. Place important words or phrases at the beginning or end of the sentence, and important sentences at the beginning or end of the paragraph. Emphasis also can be accomplished by some device which makes the important item different from other items. For example:

  - Emphasize a sentence by indentation or by making it a separate paragraph.

  - Emphasize paragraphs by leaving margins wider than those of the other, less important paragraphs.

  - Emphasize important names, words, or phrases by capitalizing or underlining them. (This technique, however, should be used sparingly; otherwise the element of differentness, and hence emphasis, is lost).

Organizing the Writing Process

Preparation of the initial draft of a report is difficult without a clear idea of the objective of the report, its subject, the methods used in the inspection, and the results of all data collection efforts. Once this information is all available, however, developing the initial draft can still present a significant obstacle. An outline for the narrative portion of the inspection report that can be adapted for most situations appears at the end of this section. The following tips for preparing a draft are also intended to aid in preparing the report.

Each writer has a personal style in draft preparation. Effective styles allow authors to use POWER in preparing reports. The idea of POWER is simply stated as a structure for writing: Plan, Organize, Write, Evaluate (edit), and Rewrite.

- Plan. The first step in writing is to determine your objective. Why are you writing? What is the purpose of this report? Have a clear understanding of the elements of the situation involved when you answer these questions. Many good inspectors begin to plan their reports when they begin planning the investigation. By thinking about how the facts must be reported to make a clear report, they improve both the quality of their reports and their inspections.

  Prepare a detailed topic outline with topic headings that distinguish between major sections and minor topics. Include in the outline a brief reference to each supporting exhibit. An outline not only lessens chances of omitting necessary facts, but also assists in recognizing irrelevant details and achieving a logical arrangement.

- Organize. Most of the facts of an investigation are in memorandums, field notes, documents, etc. that were gathered during the inspection. Arrange this material in the order you developed in the topic outline. From this bulk of material you can refine the topic outline and then build the body of the report.

- Write. In writing the report, remember that the format of your narrative report is determined by its purpose and by Agency policy. Refer to your office's directives and official sample reports or copies of other well-written reports to determine the format of the particular type of report you are writing. Use the writing process to evaluate the information being presented. Be willing to revise the topic outline to improve structure and clarity.

- Evaluate. After you have written a draft of the report, put it aside for a while, preferably at least overnight. Then analyze the report from the viewpoint of the reviewer and answer the following questions:

  - What is the report trying to communicate?
  - Has it fulfilled the purpose of the inspection?
  - Can supervisors and reviewers make correct decisions based on this report?
  - Does it answer the questions who, what, when, where, why and how?
  - Are any further inquiries necessary?
  - Is it readable?
  - Is it fair, concise, complete, accurate and logical?
  - Is any part ambiguous?

- Proofread the report to check for the following problems:
  - Inconsistency in format or style,
  - Unnecessary repetition,
  - Inappropriate tone,
  - Omission of pertinent information, and
  - Typographical errors.

  At this point, it is often helpful to have the report reviewed by a colleague who has knowledge of the inspection or investigation. A second party can often identify problem areas more readily than the primary author, who may become too close to the material to be an objective evaluator.

- Rewrite. After evaluating the draft, rewrite or revise those portions of the narrative that do not respond to the questions used in evaluation. Upon completion of this process, the official draft of the inspection report will be circulated for official reviews and a copy of this draft will be kept in the official files. Be certain the report is an accurate representation of the complete situation.

Narrative Report Outline

While the specific information items will vary, the following outline for the narrative portion of an inspection report can be adapted to most situations.

Introduction

The introduction should briefly present all relevant background information about the conduct of the inspection and summarize the findings of the inspection.

- General Information
  - State the purpose of the inspection and how the facility came to be inspected (i.e., neutral scheme, follow-up, for cause).
  - State the facts of the inspection (i.e., date, time, location, name of the agent-in-charge, etc.).
  - Participants in the inspection.
- Summary of Findings
  - Give a brief, factual summary of the inspection findings.

- History of Facility

  - List the status of the facility (i.e., corporation, proprietorship, partnership, State agency, non-profit organization, etc., and where incorporated).
  - Give the size of the organization based on inspector observations or agency records.
  - List any related firms, subsidiaries, branches, etc.
  - List the type of operations performed at the facility under inspection.
  - List names and titles of facility officials interviewed. List the name(s) of official(s) responsible for day-to-day operations at the facility.

Inspection Activities

The body of the report should present the chronology of the inspection in the same order that the inspection was conducted. Be certain to insert all observations when appropriate and to cover the following topics when appropriate.

- Entry/Opening Conference

  - Describe the procedures used at arrival, including presentation of credentials and written Notice of Inspection, and to whom they were presented.
  - Describe any special problems or observations if there was reluctance on the part of facility officials to give consent, or if consent was withdrawn or denied.
  - If special procedures were necessary, such as obtaining a warrant, describe the procedures.
  - Summarize the topics discussed during the opening conference.
  - Note presentation of any other required notices (e.g., the TSCA Inspection Confidentiality Notice) and the officials to whom they were presented.
  - Note if duplicate samples were requested.

- Records

  - List the types of records reviewed, noting the reasons for their review, and referencing documents that were borrowed or copied.
  - Describe any inadequacies in recordkeeping procedures, or if any required information was unavailable or incomplete.
  - Note if recordkeeping requirements were being met.

- Evidence Collection
  - Note and reference any statements taken during the inspection.
  - Describe and reference photographs taken during the inspection if they were relevant to possible discrepancies.
  - Reference any drawings, maps, charts, or other documents made or taken during the inspection.
- Physical Samples
  - Describe the purpose for which samples were obtained.
  - Describe the exact location from which they were obtained.
  - Describe sampling techniques used. They may be referred to as standard operating procedures (SOPs), if SOPs were followed exactly. If there were deviations from SOPs explain why and what was done.
  - Reference controlled identification procedures.
  - Describe the physical aspects of the sample (color, texture, viscosity, etc.).
  - Describe chain of custody procedures used in sample handling.
  - Summarize results of laboratory analysis (include actual data in the appendix).
- Closing Conference
  - Note and reference receipts for samples and documents given to facility officials.
  - Note procedures taken to confirm claims of confidentiality and Receipts for Confidential Business Information.
  - Note any recommendations, referrals, etc., made to facility officials.

Attachments

Supporting information should be attached to the report, to ensure that reviewers have all of the data needed to fully evaluate the compliance situation. All of these attachments should be fully referenced in the body of the report.

- List of Attachments
  - Prepare a list of all documents, analytical results, photographs, and other supporting information attached to the report. A general index list, rather than detailed descriptions will aid case development personnel in locating specific documents.

- Documents
  - Attach copies of all documents and other evidence collected during the inspection. All documents should be clearly identified.
  - In cases where documentary support items cannot be included easily with the report, it may be possible to substitute descriptive information.
- Analytical Results
  - Attach sample data and quality assurance data. This may be presented as tables here, with pertinent information summarized in the body of the report.

Inspection Report Evaluation Guide

The organization and format of an inspection report can vary based on the practice of the office or program, the particular circumstances of the inspection, and the individual writing style of the report writer. No matter what form the report takes, however, the report should contain information about the facility or site inspected, a detailed description of specific inspection activities that were performed, and substantiating information on any suspected violations that were observed.

Exhibit 17-1 is an Inspection Report Evaluation Guide which contains questions that should be answered by each inspection report, regardless of the organization or format the report follows. Note that being able to answer all of these questions is a sign of a high quality inspection, as well.

EXHIBIT 17-1

INSPECTION REPORT EVALUATION GUIDE

The organization and format of an inspection report can vary based on the practice of the office or program, the particular circumstances of the inspection, and the individual writing style of the report writer. No matter what form the report takes, however, the report and its attachments should contain the answers to the questions which follow.

Basic Inspection Information

Who prepared the inspection report?

Who signed the inspection report, and on what date?

Who performed the inspection (all participants)?

What is the name and location of the facility/site?

What is the facility/site's mailing address and telephone number?

What is the name and title of the responsible official who was contacted?

What was the reason for the inspection (e.g., routine, response to a complaint, for cause)?

What are the names and titles of all of the government personnel who participated in the inspection?

Entry/Opening Conference

What are the facts about the entry (e.g., date, time, entry location, agent-in-charge)?

Is there documentation that proper entry procedures were followed?

Were all required notices and credentials presented?

Is there documentation that facility officials were informed of their right to claim information confidential?

Were there any unusual circumstances about gaining consent to enter (e.g., reluctance, attempts to limit inspection scope, attempts to place special requirements on inspectors)? How were they handled?

Who was present at the opening conference? What topics were discussed?

EXHIBIT 17-1 (Continued)

Background on the Facility/Site

What type of facility/site is it?

What types of activities and operations take place at the facility/site?

Who owns the facility or site (e.g., corporation, proprietorship, partnership, Federal or State agency, non-profit organization)?

How many years has the facility been in existence?

How many employees are there at the site?

Have any major modifications been made to the facility? Are any future modifications or expansions planned?

At what level of capacity is the facility operating? How many shifts? How many hours per day and days per week? What relationship does this information have to the inspection that was performed?

Which operations/processes/activities at the facility were examined during the inspection?

Which operations/processes/activities at the facility were not examined?

Inspection Activities

Records Inspection

Is there a general description of how records are kept at the facility?

What was the purpose of reviewing records?

What facility records were reviewed?

How were the specific records selected for review (e.g., was an auditing technique used, were all records reviewed)?

Are records that were photocopied or data manually copied from records adequately identified and documented?

Were any suspected violations found? (Each should be fully documented, making sure that all of the information required by the section below on suspected violations is included.)

EXHIBIT 17-1 (Continued)

Physical Sampling

What was the inspector's sampling plan for the facility/site?

What physical samples were collected at the site?

Are the sampling techniques used adequately explained?

Are all samples clearly tied to an identification number, location, purpose?

Are sampling conditions and other physical aspects of the sample (e.g., color, texture, viscosity) described?

Were any deviations from the sampling plan and/or standard operating procedures (SOP) adequately explained and documented?

Are chain of custody procedures documented?

Are the results of laboratory analysis clearly presented?

How do the sample results compare to permit limits?

Illustrations and Photographs

Are photographs taken during the inspection referenced? Properly documented?

Is there some information about the inspection that could be made easier to understand through a diagram or sketch in the inspection report?

If sketches, diagrams, or maps are used, is the scale and/or other relationships shown clearly?

Interviews

What are the names and titles of facility officials and other personnel who were interviewed?

Are their statements clearly summarized?

What are the names and addresses of any other individuals who were interviewed or who were witnesses?

Closing Conference

Is there documentation that required receipts for samples and documents were provided?

Is there documentation that facility officials were given an opportunity to make confidentiality claims?

Are statements the inspector made to facility officials regarding compliance status, recommending actions to take, or other matters noted?

EXHIBIT 17-1 (Continued)

Documentation of Suspected Violations

The heart of the inspection report is really the documentation and substantiation of suspected violations, which allows the Agency to determine whether a violation occurred, how and why it occurred, and its seriousness. This substantiating information includes all of the evidence of various kinds that has been collected. In an actual inspection report, some of the answers to the questions on the preceding pages might be answered in the portion of the report which discusses the evidence collected and other particulars regarding each suspected violation.

The inspection report should answer the following questions for each suspected violation.

Documentation of Suspected Violation

What regulation is suspected to have been violated?

What information proves that the cited regulation applies to the facility/site?

Using the elements of the regulation as a guide, what information proves that the suspected violation occurred?

What sampling methods (if appropriate) were used to determine that the violation occurred? Are any deviations from sampling methods adequately explained?

What information shows that possible exemptions to the rule do not apply?

Cause of Violation

Note: Not all programs require this information, but it may be useful even where not required for such purposes as negotiating an appropriate remedy and penalty and for planning future inspections. Causal information must be stated carefully so that it does not provide the violator with an excuse for the violation.

What information documents the possible cause of the violation (e.g., direct observations of guage readings, production logs, physical appearance of materials, statements by facility personnel)?

Is there any supporting information confirming/disapproving a possible claim of an upset or other exempt activity?

EXHIBIT 17-1 (Continued)

Other Mitigating and Aggravating Factors

The level of enforcement response is based on the seriousness of the violation. Civil penalty amounts are based on the gravity and circumstances of the violation, which is usually a calculation of the extent of the violation (e.g., amount of material involved) and the extent of the actual or potential harm that was or could be caused by the violation. This base penalty can be adjusted upward or downward based on such factors as past compliance history, or efforts made by the facility to correct the violation

The inspection report should contain information that will support the appropriate determination of the seriousness and extent of the violation as well as other information that might be useful in penalty calculation.

What is the seriousness of the violation (e.g., amount of emissions, length of time of excess emissions, nature of emissions, location of source, perceived public impact)?

What harm resulted or could result from the violation?

What efforts did the facility make to correct the violation?

How difficult will it be to comply (e.g., availability of technology, cost of complying, time required to correct the violation)?

What is the facility's past compliance history?

17B OFFICIAL FILES

The official files related to an inspection or investigation comprise the Agency's legal documentation of its activities. All original documents, data, and evidence related to an inspection become part of the official records and should be treated as potentially admissible evidence in legal proceedings. Further, the opposing side in an enforcement proceeding is likely to have access as part of the discovery process. In criminal investigations, the Agency may turn over to the opposing side literally every scrap of paper with a note jotted on it in order to comply with the Jencks Act.

The inspector should always maintain a diligent and professional manner in recording notes of conversations, planning meetings, interviews, inspection observations, sample and data collection activities, and interactions with individuals related to the project. These notes should be prepared immediately, or as soon after the interaction or observation as is possible, to avoid loss of important details. All such records should be dated, legible, and contain accurate and complete documentation. Their language should be objective, factual, and free of personal feelings or inappropriate information. Avoid recording personal or irrelevant information where this information may become part of official records.

Components of the Official Files

Historical Records

Historical records related to a project are probably already contained in the official files for the facility being investigated. These records may include permit applications and associated documentation; inspection plans and reports from previous inspections; reports of laboratory data from samples collected during previous inspections or submitted by the facility; site maps, plans, drawings, and descriptions; and photographs, photocopied records, and other physical samples or evidence about the facility. All of these records are available to authorized inspection team members, and should be used to provide a background of knowledge about the facility and its history with the Agency. This information will often be valuable in planning an inspection.

The Inspection File

The inspection file normally contains all of the records associated with an inspection. This file is reviewed by case development personnel as part of the evaluation of whether an enforcement response should be made to potential violations identified during the inspection, and if so, what type of enforcement response should be made. A missing required inspection notice or incomplete chain of custody record, for example, could jeopardize the Agency's ability to successfully prosecute a violation.

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There are differences in statutory requirements as well as program and Regional policy and practice, so no one list of file contents will be appropriate for all situations. The list of contents which follows can serve as a guide to the types of records that should be kept in the inspection file.

- Investigation requests (if issued). If a written request was issued by another office (e.g., Headquarters or Regional program office) to conduct the inspection, a copy should be included in the file.

- Communications. For each inspection, communications may occur in many forms and among many individuals. Copies of all official correspondence, possibly including notifications of intent to conduct an inspection (both to the facility and to the State), requests for data, and informational correspondence, should be included in the official files. Records of telephone and personal conversations also should be included.

- Notice of Inspection. If the authority in the statute under which the inspection was conducted requires presentation of a notice of inspection, the inspection file must contain evidence that a written notice of inspection was presented. Case development personnel will review it to ensure that the inspection adhered to the terms specified in the notice.

- Verification of Credentials. Some EPA statutes also require that an inspector present appropriate credentials to the owner, operator, or agent in charge of the inspected premises. Therefore, the inspection file should contain evidence that proper credentials were presented.

- Inspection Confidentiality Notice. TSCA requires that facility officials be informed of their right to claim inspection data as confidential business information (CBI). For all TSCA inspections, the file should contain a copy of the CBI notice. It will be reviewed for proper signatures and dates, as well as completeness.

- Declaration of Confidential Business Information and TSCA Confidentiality Clearance References. These items are contained in the inspection file when materials have been claimed as confidential. The Declaration collected during the inspection will be reviewed for signatures, dates, and a complete listing of all documents and samples for which CBI was claimed. The Clearance References will be checked to ensure that all individuals who handled or will handle TSCA-CBI held the appropriate clearances.

- Receipt for Samples and Documents. A receipt must be issued for all samples and documents collected during inspection under some EPA statutes (RCRA, CERCLA, TSCA); it is good practice under all statutes.

- Inspection (Project) Plan. The plan will be reviewed to ensure that it presented the objectives, scope, logistics, and schedules for the inspection. Inspectors should be prepared to explain the inspection rationale and any deviations from the plan.

- Narrative Inspection Report. Generally, a copy of both the draft and final versions of the inspection report, including attachments, should be included in the inspection file. However, some programs and Regions may have specific procedures for review and retention of draft reports. The final report will be reviewed by case development personnel for factual information, professional judgments, objectivity, and comprehensiveness.

- Inspection Report Form. If the program has an inspection form or checklist that is completed for each inspection, a copy should be included in the file.

- Other Evidence. Other evidence that should be kept in the official files includes photographs, copies of documents and records, statements, affidavits, drawings and sketches, etc., collected during the inspection.

- Custody Records. There should exist a complete inventory of sample tags and seals, chain of custody records, and related materials that demonstrate the traceability and proper identification of all samples taken during an inspection. Chain of custody records include all of the following items:

  - Official Chain of Custody Record forms used to record the custody of all samples and other physical evidence collected during an inspection,

  - Copies of Receipt for Samples forms (for RCRA, CERCLA, and TSCA samples) that were provided to the owner or operator of the facility,

  - Copies of letters authorizing laboratories to dispose of samples related to the project, and

  - Sample tags or labels from samples that have been destroyed by the laboratory.

- Laboratory Analyses. Test results from any laboratory analyses made in connection with the inspection should be included in the inspection file.

- Subpoena. If a subpoena was issued, a copy must be included in the inspection file. It will be reviewed to ensure that it was issued properly and that there was compliance with the requirements of the document.

- Warrant. If a warrant was issued, a copy of the warrant application, warrant, and inventory should be in the file. These will be reviewed to ensure the warrant was properly issued and that the inspection complied with its terms.

- Field Logbook. The bound field logbook used by the inspector to record his or her field activities on the inspection becomes part of the official file (although it may not be physically located in the file itself). Once completed, the logbook becomes an accountable document, it does not belong to the inspector.

17C EVIDENCE AUDITING

Cases developed by EPA and referred to the Department of Justice for potential civil litigation must be based upon rigorously documented evidence and supporting data in order to minimize delay in filing, facilitate discovery proceedings, present a convincing case for the EPA and DOJ attorneys engaged in pre-trial negotiations, and finally, to prevail in the courtroom. Prior to development of the evidence auditing program, EPA Headquarters and Regional staffs had followed widely varying approaches to the preparation of referral packages and supporting documentation.

The types and volume of documents relating to a case are often overwhelming. For instance, a single hazardous waste case may involve 100,000 or more documents. The attorneys are confronted with difficult tasks of assembling and organizing all documents, preparing witness lists, and extracting information necessary to conduct interrogatories and depositions.

Documents supporting EPA civil referrals may originate in Regional and Headquarters program offices, State files and/or contractors performing support services for the Agency. In addition, records obtained from prospective defendants often are so voluminous and/or disorganized that it is difficult for the EPA/DOJ case management team to effectively review them. Lack of sufficient assembly and organization of this material becomes obvious at the time of discovery or during settlement and negotiation discussions.

The consequences of all these factors may include unknowingly exposing case strategy, inadvertently releasing privileged or confidential material, or being unaware of documents that could strengthen or weaken the case. The Agency position is vulnerable to attack if the EPA/DOJ case management team is not assured of both the integrity of the supporting documentation, and a case file that is organized for rapid and efficient access.

Evidence Auditing Program

An evidence audit includes the review, inventory and organization of the documents that make up a case file. The audit of a simple case may involve only the assembly and handwritten compilation of the documents present and a review of the case files to ensure that all pertinent documents are present. The audit of a highly complex case may involve, in addition to assembly and inventory of documents, computerized listings and sophisticated categorization, construction of evidence profiles, and elaborate formatting as an aid to understanding the material content.

The evidence audit system is designed to: (1) establish an overall case document control system, (2) provide quick and complete access to records, and (3) provide a means for assuring admissibility of the evidence. The system is flexible to accommodate the increase of material as the case progresses, and is adaptable to changes in case strategy.

With the advent of the hazardous waste enforcement programs and the conduct of a major portion of the Agency's hazardous waste site investigations by contractors, the National Enforcement Investigations Center was assigned responsibility for making evidence audits available to Regional and Headquarters staffs for enforcement case referrals developed as a result of these activities. Evidence audits lend a major advantage to the case development process by enhancing the supportive rationale and development of legal strategy of cases; detecting flaws in evidence with a timeliness that permits repair; avoiding presentation of questionable evidence in the courtroom; and perhaps most importantly, conserving the time and case handling capacities of the attorneys and Regional and Headquarters staff.

The NEIC, through its evidence audit capability, has developed an additional litigation support service to assist Regional case management teams with large and complex cases. The procedures provide for assembling records; categorizing, marking, and inventorying documents; and making microfiche copies.

17D OFFICE SECURITY MEASURES

Security measures must be taken to protect all inspection data (including documents, samples, field notes, and other documentation) collected by the inspectors. In addition to the routine security measures that are always taken with regard to inspection data, the declaration of certain information as TSCA confidential business information (TSCA-CBI) imposes a further layer of security procedures designed to control access to the information within the Agency.

Routine Inspection Data

Routine inspection documents and field notes must be kept in a locked file cabinet when not in actual use.

Confidential Business Information

Sometimes facility officials will claim data on a non-TSCA inspection as confidential business information. While Regional and office policy may vary, usually only personnel authorized by the Regional Administrator, Division Director, or Branch Chief are allowed access to the file.

An access log should be made for all transactions.

Copies of information marked "trade secret" and/or "confidential" should not be made without explicit authorization from one of the individuals named above.

Requests for access to confidential information by any member of the public, or by an employee of a State, local, or Federal agency are generally handled according to the procedures contained in the Freedom of Information Act regulations (40CFR). All such requests are referred to the responsible Regional or Headquarters organizational unit.

TSCA-CBI Security Procedures

In addition to all the routine security measures that must be taken for any inspection data, the further procedures discussed below must be followed with regard to information declared TSCA Confidential Business Information.

- If the inspector has confidential business information in his or her possession from an inspection when he or she returns to the office, the inspector should check it in with the Document Control Officer (DCO) immediately upon his or her arrival.
- The Document Control Officer should be informed of any physical samples that were declared confidential. It is the responsibility of the DCO to notify the laboratory of the Document Control Number (DCN) assigned to the sample which should appear on the sample chain of custody and laboratory analysis reports. If a copy of the laboratory analysis is sent to the firm, it must be sent by registered mail in a double envelope.
- After the documents have been logged in by the DCO, they must then be handled in accordance with the procedures detailed in the TSCA-CBI Security Manual.

CHAPTER 18

LABORATORY ANALYSIS

An inspection is not complete until samples that were taken have been analyzed and the results reported and interpreted. In many cases, the determination as to whether a suspected violation really did occur cannot be made without confirming analytical results.

The first section of this chapter provides inspectors with a general understanding of what happens in the laboratory, guidance that will aid in projecting the costs and time involved in carrying out sample analysis, and suggestions for when consultation and coordination with laboratory personnel is particularly important. The second section of this chapter discusses interpretation of analytic results.

To become more familiar with laboratory operations and how samples are analyzed, inspectors are encouraged to tour Regional laboratory facilities.

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18A LABORATORY OPERATIONS

EPA samples are analyzed either by an EPA laboratory or by a laboratory under contract to EPA. This section on laboratory operations is based on the work of the EPA's own Environmental Services Division (ESD) laboratories located in each Region. However, much of the discussion is also relevant to working with other laboratories which analyze samples from EPA inspections.

Laboratory Functions

The EPA laboratories carry out a variety of functions related to the conduct of compliance inspections as well as to other environmental monitoring projects. Sample analysis involves preparing the samples, conducting specific analyses, calculating and verifying the data, and preparing reports. The types of analyses performed vary in degree of complexity and therefore in the time and effort required to perform them. Generally speaking, the complexity of a single analysis increases with the number of answers that can be obtained from it.

In addition to the analysis of samples themselves, the laboratories must carry out many related activities and procedures. Examples of related activities include maintaining quality assurance and quality control, maintaining effective chain of custody, storing samples, disposing of samples and waste (some of which is classified as hazardous), and keeping up with maintenance requirements on supplies and instruments.

Advance Scheduling

The laboratories respond to demands from multiple EPA programs. Since the laboratory has limited time, personnel, and equipment, advance scheduling is essential if samples collected on an inspection are to be analyzed promptly.

Each Region and program has its own policy and procedures regarding the use of laboratory capacity. In some cases, at least general schedules for analysis are worked out between Regional inspection program managers and the laboratory on a quarterly basis, with refinements made as the actual time grows nearer. Depending on the needs of a particular inspection and the Region's procedures, the inspector (or team leader) assigned may need to make additional, more detailed arrangements regarding sample analysis. In any event, inspectors should become familiar with the Region's policies and procedures for arranging for sample analysis and be sure that anticipated analytic work is scheduled well in advance with the appropriate laboratory.

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Relationships with Laboratory Personnel

Laboratory personnel are technical experts who can be called upon to assist inspectors with all aspects of sampling. They can provide technical advice on such matters as developing sampling plans, determining the types of samples that will provide the most usable data, and interpreting analytical data. Inspectors are encouraged to use laboratory staff as a resource who can help assure that sample collection, analysis, and interpretation meet the objectives that are set out for an inspection.

Laboratory personnel should also be consulted on technical questions such as requirements for sample preservation in the field, holding times, and volumes needed for various analyses. Inspectors will also be involved in quality assurance/quality control activities coordinated through laboratory staff.

Projecting Sample Analysis Time and Costs

Inspectors should factor both an estimate of the costs of analyzing samples and the time it will take to receive results into their advance planning for an inspection involving sampling. Cost estimates will help budget the inspection, and may result in changes in the number of samples collected or the scope of the inspection. Understanding how long it is likely to take for particular types of samples to be analyzed will allow the inspector to make realistic projections of when results can be expected back from the laboratory. If quicker service is needed, such as in an emergency situation, special arrangements may be possible under the policies and the procedures.

Exhibit 18-1 on pages 18-10 and 18-11 shows the average times and fees at two different laboratories for analyzing various types of samples commonly collected by EPA. When more specific information is not available, this data can help in making cost and time projections.

Data Quality Objectives

One of the functions of the laboratory is to provide data from the analyses conducted on samples collected in the field. During the planning phase, the data user must determine the quality of data required from the inspection. Such statements of data quality are known as Data Quality Objectives (DQOs) and are part of the Quality Assurance Project Plan prepared in advance of the sampling inspection. The DQOs are qualitative and quantitative statements of the quality of data required to support specific decisions or regulatory actions. The laboratory is responsible for producing data of known quality consistent with that prescribed in the DQO.

The program office, with laboratory input, will select the analytical methods, instruments, parameter detection limits, and other analytic requirements which are capable of producing data of the quality required by the DQO. The quality of a data set is defined in terms of precision, accuracy, representativeness, completeness, and comparability. The significance of each of these measures differs according to their applicability to the laboratory and particular data set.

- Precision and Accuracy. Precision and accuracy are quantitative measures that characterize the amount of variability and bias inherent in a given data set. Precision refers to the level of agreement among repeated measurements of the same characteristic (reproducibility). Accuracy refers to the different closeness of a measured value to the true value of the parameter being measured. Bias is the difference between the average value of a set of measurements of a standard and the reference value of a standard. The confidence level is an estimate of the reliability of a sample value.

- Representativeness. Representativeness refers to the degree to which the data collected accurately reflect the population, group or medium being sampled.

- Completeness. Completeness refers to the amount of data that is successfully collected with respect to that amount intended in the study design.

- Comparability. Comparability refers to the ability to compare data from different sources with a degree of confidence.

Chain of Custody Procedures in the Lab

Chain of custody procedures initiated by the inspector in the field are continued in the laboratory to assure sample integrity. A brief description of laboratory chain of custody procedures follows.

Initial Receipt and Logging

When samples are received in the Regional laboratory, they are logged into the laboratory sample tracking system. It is important that the documents accompanying the samples be complete and clear in order to expedite the log-in process. If the documents are not complete or clear, analysis of the samples may be delayed until the discrepancies are resolved.

Generally, the sample custodian will:

- Verify that there is a sample for every sample number on the Field Sample Data Sheet. The number and types of sample containers are noted and are checked to ensure the analyses requested are appropriate for the containers present. An in-house form is prepared to document this step.

- Document whether the individual samples, boxed or ice chests, were sealed upon receipt, and note in the "remarks" section of the logbook the condition (if damaged) of the sample container.

- Sign all chain of custody records, and identify the date and time of sample receipt.

- Log all samples into the master logbook and computer file giving the following information: sample log number; source of sample; station description; date and time samples were collected; if sealed, yes or no; date and time received; received by; received from; and any other pertinent remarks.

- Place sample numbers on all sample containers and secure samples in the locked-refrigerated custody room.

- After sample logging is completed, provide the computer print-out sheets listing the required analyses for all samples to each project chemist for placement in the project file. Computer data reporting sheets will be given to the appropriate project chemists.

- Maintain a copy of the field custody form in the laboratory files. The original will be sent to the individual(s) responsible for the sample collection.

Project Analyst/Chemist Access and Control

Procedures vary, but in general, access to the locked room where samples are stored (or the "custody room") is strictly controlled. Analysts or chemists log samples in and out and are responsible for custody of the samples during analysis. Original samples are not left outside the locked custody room during non-duty hours unless all analyses are complete and the sample is to be discarded. If the laboratory does not have a custody room, appropriate procedures to maintain the security and integrity of the samples are employed.

The analyst keeps a data logbook documenting the date of analysis, type of analysis, and identification numbers. When finished with the analyses, the analyst returns the sample to the custody room and completes the appropriate log. The custody room log is maintained as a permanent file; it is potential evidence in an enforcement case.

Custody information is also generally maintained in the master chemistry and microbiology logbooks, master computer sample log, the chemistry and microbiology field logbooks, and in the individual analytical data books.

Laboratory Analysis

Inorganic Sample Preparation and Analysis

Typical inorganic sample analysis includes field parameters such as pH, conductivity, and turbidity measurements. These analyses require only instrument calibration and are some of the most rapid parameters that can be measured. If sample preparation and calibration are included, about ten samples of each parameter can be done per hour. Methods that require titration techniques, such as total alkalinity or hardness, acidity, chloride, sulfide, sulfate, and carbonate, require reagent standardization and accurate sample measurement. They are reported fairly quickly given that for each parameter approximately ten samples can be analyzed per hour.

Oxygen Demand, Solids, and Nutrients

The oxygen demand analyses, Biochemical Oxygen Demand (BOD) and Chemical Oxygen Demand (COD), require minimal equipment to perform, but require a large amount of a chemist's time. They are both titration techniques, using colorimetric endpoint detection.

The solids parameters require a balance (accurate to 0.0001 gm), a drying oven, and a muffle furnace capable of achieving temperatures in excess of 400°C. Total Dissolved Solids (TDS) and Total Solids (TS) need to be evaporated overnight, while two hours' drying time is enough for Total Suspended Solids (TSS), Total Volatile Solids (TVS), or Total Volatile Suspended Solids (TVSS). The amount of hands-on time needed for TDS, TSS, and TVS for ten samples is about 1 hour; for TS, 30 minutes; and for TVSS, 90 minutes. Percent Total Solids needs only about 15 minutes for preparation of ten samples, but needs to dry overnight.

Most of the nutrient parameters are analyzed on the Technicon Auto Analyzer II (AAII). Four of the parameters, dissolved orthophosphate, nitrate-nitrite nitrogen, nitrite nitrogen, and ammonia nitrogen are analyzed simultaneously. Cyanide and fluoride are also analyzed after calibration on the AAII. Total Kjeldahl nitrogen and total phosphorus require a digestion step before final determination. Kjeldahl nitrogen is then analyzed by the AAII, but total phosphorous can be determined either manually using a spectrophotometer or by AAII. For Kjeldahl and total phosphorous analyses, about six hours are needed for ten water samples, due to the digestion time.

Metals

Metals analysis involves a great deal more preparation than any of the previously mentioned parameters. A digestion stop is necessary for all metals analyses, except drinking water samples, and that step can require a great deal of time. The samples are then diluted to a known volume and then run on the atomic absorption spectrophotometer (AAS), or inductively coupled plasma atomic emission spectrophotometer (ICP-AES).

Typical metal analysis would include testing for chromium lead, nickel, silver, tin, etc. The amount of time needed to prepare and analyze ten water samples for the priority pollutant elements, which consists of 13 different metals, is about 66 hours. With tissue samples, the amount of preparation time can increase by a factor of four. Accordingly, a set of ten fish tissues for a hazardous waste to meet a list of 24 metals would probably take about two weeks to complete.

Extraction procedure toxicity (EP TOX) testing for metals in soils or sludges requires a large amount of time for extracting the soils and the repeated checking of pH. For this reason, ten EP toxicity soil samples require about eight days to complete.

Organic Priority Pollutants

The organic chemicals analyses as performed by the Gas Chromatograph (GC) or Mass Spectrometer (GC/MS) give several parameters for each sample run. The main limitation as to the number of compounds that can be determined at one time is the number of compounds in the calibrating standard, and the quality of the resulting chromatogram. The GC/MS can be used for the analysis of pesticides, PCBs, herbicides, and volatile organics analysis (VOA).

A high performance liquid chromatograph (HPLC) can be used for any compounds that are too unstable to be analyzed by GC. It is also useful for compounds that have high boiling points and tend to degrade on a GC column during analysis. The disadvantage of the HPLC is that it is not as sensitive as a GC, nor is it as selective as a GC/MS for PNAs.

Purgeable halocarbons and trihalomethanes are also analyzed on a GC. The purge and the trap method of separation is used, as with a VOA, but the detector used is a Hall Electrolytic Conductivity Detector rather than a mass spectrometer. The Hall detector can detect compounds with halogen atoms, but not other aromatic (benzene) or aliphatic (unsaturated carbon and hydrogen) compounds.

General Chemical Data Handling Procedures

All raw analytical and instrument control data generated in the laboratory are entered into bound data books, kept as strip charts, or stored as computer hard copy or magnetic media.

Information contained in these data logbooks includes the following: parameter, project, date of analysis, analyst, sample log number, all calibration data, all readout data, calculation, final concentration, and quality control data.

Final results of all analyses are transferred to a standard computerized report form and forwarded to the requester with a cover memorandum.

Analytical Corrective Actions

Analytical corrective actions include, but are not necessarily limited to, re-analysis, calculation checks, instrument recalibration, preparation of new standards/blanks, re-extraction/digestion, dilution, application of another analysis method, and additional analysts training. Most frequently, these corrective actions will be initiated by the analyst at the time of analysis. However, some corrective actions are initiated subsequent to analysis based on evaluations performed by quality assurance or laboratory personnel.

Corrective action will be taken at any time during the analytical process when deemed necessary based on an analyst's judgment or when quality control data indicate a need for action. Generally, corrective action will be triggered by such things as poor analysis replication, poor recovery, instrument calibration problems, or blank contamination.

All data corrective actions will be noted on the appropriate log, chromatogram, strip chart or data report.

Disposal of Samples or Other Physical Evidence

The decision to dispose of samples or other physical evidence obtained is made on a case-by-case basis after permission is obtained from the inspector or the inspector's supervisor. Before any samples analyzed by the laboratory are disposed of, laboratory personnel should contact the field inspector or the inspector's supervisor in writing, requesting permission to dispose of the samples. The samples should not be disposed of until the appropriate official (the inspector or the inspector's supervisor) provides permission in writing.

The following general guidance is offered for the disposal of samples or other physical evidence:

- No samples, physical evidence, or any other document associated with a criminal investigation shall be disposed of without written permission from EPA's Office of Criminal Investigations and/or the Office of Regional Counsel.

- Quality assurance samples are routinely disposed of after the analytical results are reported.

After samples are disposed of, the laboratory sends the sample tags to the field inspector. These sample tags must be placed into, and maintained in, official inspection and investigation files.

Laboratory Waste Disposal Practices

Laboratory wastes must be disposed of in a manner which maximizes personnel and environmental protection, and minimizes the risk of adverse effects. All disposal practices must comply with appropriate safety, health, and environmental regulations. Every effort should be made to minimize the amount of chemical wastes requiring disposal.

There are three general ways of disposing of laboratory wastes: (1) disposal through the sanitary sewer system; (2) evaporation in chemical fume hoods; and (3) disposal at a regulated treatment and disposal facility. The method of disposal is dependent upon the:

- Nature of the waste
- Hazard potential of the waste
- Amount of the waste
- Availability of acceptable waste disposal method
- Applicability of waste disposal regulations under RCRA.

EXHIBIT 18-1

AVERAGE SAMPLE ANALYSIS TIMES AND FEES

Analysis	Time		Cost/Sample	
	Lab A	Lab B	Lab A	Lab B
Chlorinated Pesticides	2-3 weeks	3 weeks	$ 90.00	$160.00 -190.00
PCBs (estimation of Aroclors)	2-3 weeks	3 weeks	$ 90.00	$160.00 - 190.00
Organo - Phosphates	2-3 weeks	3 weeks	$ 90.00	$160.00 - 190.00
Combination Screens (of above analyses)	2-3 weeks	3 weeks	$ 95.00 - 100.00	$160.00
PCP (Pentachlorophenol)	2-3 weeks	3 weeks	$ 85.00	$200.00 - 225.00
Volatiles in Groundwater Scan (EPA Methods 601, 602)	2 weeks	3 weeks	$100.00	$225.00
Gasoline Contamination of Groundwater (benzene, toluene)	2 weeks	3 weeks	$70.00	$ 90.00
Metals in Groundwater Scan by ICP	2 weeks	3 weeks	$95.00	$200.00
ORGANICS BY GC: VOLATILES				
EPA Methods 601, 602	2 weeks	3 weeks	$150.00 -180.00	$100
EPA Method 603	2 weeks	3 weeks	$ 50.00 - 60.00	$160.00
Pesticides & PCBs (EPA Method 608)	3 weeks	3 weeks	$120.00 - 135.00	$160.00

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NOTE: Price range represents costs for aqueous and non-aqueous samples.

EXHIBIT 18-1 (Continued)

AVERAGE SAMPLE ANALYSIS TIMES AND FEES (Continued)

Analysis	Time		Cost/Sample	
	Lab A	Lab B	Lab A	Lab B
ORGANICS BY GC/MS				
Volatiles (EPA Method 624)	2 weeks	3 weeks	$220.00 - $235.00	$225.00 - $275.00
Acid Extractables (EPA Method 625)	3 weeks	3 weeks	$205.00 - $230.00	$275.00 - Don't do
Base Neutrals (EPA Method 625)	3 weeks	3 weeks	$260.00 - $285.00	$325.00 - Don't do
Acid/Base Neutral Combination (EPA Method 625)	3 weeks	3 weeks	$400.00 - $450.00	$475.00 - $525.00
GC/MS Library Search for Unknowns appearing in 12-15 (each peak)	2 weeks	Don't do	$ 10.00 - $ 10.00	Don't do
Dioxin (qualitative, in addition to Base/ Neutral Analyses)	2-3 weeks	Don't do	$186.00 - $230.00	Don't do
EP - TOXICITY LEACHATE				
Extraction	2-4 weeks	3 weeks	$100.00	$125.00
Inorganic Analyses (Barium, Lead)			$151.00	$155.00
Organic Analyses (Endrin, Lindane)			$165.00	$280.00
PCB's				
Oils	3 weeks	2-3 weeks	$60.00	$100.00
Water	3 weeks	3 weeks	$60.00	$160.00
Soil/Solid Waste	3 weeks	3 weeks	$75.00	$190.00
Metals by AA or ICP (e.g., Chromium or lead. Note: these are cheaper than some of the other metals)	2 weeks	3 weeks	Water: $10.00 prep. chrg. + $13.00/metal Solid/Solid Waste: $11.00 moisture + $10.00 homogenization + metals prep.$20.00 + $13.00/metal	Water: $10.00 digestion of sample + $11.00 per metal Solid/Solid Waste: $15.00 digestion of sample = $14.00 per metal

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NOTE: Price range represents costs for aqueous and non-aqueous samples.

18B LABORATORY RESULTS

A variety of reports can usually be generated from sample analytical results. The formats and types of reports available will generally depend on the computer capabilities of the laboratory performing the analysis.

Because of the many different ways in which analytical results may be reported, no single set of instructions can be developed to aid inspectors in reading and interpreting analytical results; this can best be learned through practical, hands-on experience. However, the ability to read and interpret analytical results and incorporate them into the inspection report is a key skill that inspectors should have.

Inspectors should know:

- What routine report formats are available from the laboratories they are most likely to use.
- What other report format options are available and the purposes for which they are most useful.
- How to read analytical results presented in commonly used report formats.
- How to identify and interpret key information from an analytical report (e.g., germane to substantiation of a violation or of compliance).
- How to prepare a summary table or other graphic representations of the key data that will be readily understandable to case development personnel and other readers.
- How to incorporate salient points from the analytical results into the narrative inspection report, including summary tables or charts as appropriate.

Laboratory Results in Inspection Reports

The results obtained by the laboratory should be incorporated by the inspector into the inspection report. The inspection report should be comprehensive, providing a perspective on the inspection that takes into account engineering variables and observations as well as data validation and an interpretation of the results. The inspection report should confirm that the sampling objectives have been met and explain any outliers in the data. The data results should be evaluated statistically to determine their significance, and the results should be converted into compliance terms.

Data Evaluation

When the laboratory results have been obtained by the inspector, the data must be evaluated before any conclusions can be drawn. Data evaluation is usually conducted through statistical analysis. Statistical analysis provides methods of treating data so that the maximum information can be obtained with a predetermined risk of drawing false conclusions. No method can draw conclusions from experimental data with a zero risk of error.

There are a variety of statistical procedures available for analyzing data. However, the inspector is advised to be aware that manipulation of identical data points through alternate statistical methods can produce different and sometimes contradictory results.

For example, the following data points have been obtained from a metals analysis for lead. The purpose of the data evaluation is to determine if the collected samples exceed the drinking water standard of 0.05 mg/l for lead.

Table 18-1 - Data Analysis

Sample Number	Concentration (mg/l)
1	.020
2	.048
3	.049
4	.045
5	.049
6	.054
7	.052
8	.048
9	.080
10	.055

Sample mean = 0.050 mg/l
Sample maximum = 0.080 mg/l
Sample minimum = 0.020 mg/l

In this case, calculation of the sample mean determined that the mean concentration did not exceed the standard for lead in drinking water. However, four of the samples did exceed the standard for lead, including the sample maximum which was recorded at 0.080 mg/l. If the sample maximum is considered an outlier (not representative of the sample population) and discarded from the analysis, the new sample mean is 0.0467 mg/l which does not exceed the standard.

Table 18-2 - Sample Maximum Considered As An Outlier

Sample Number	Concentration (mg/l)
1	.020
2	.048
3	.049
4	.045
5	.049
6	.054
7	.052
8	.048
*	*
10	.055

Sample mean = 0.0467 mg/l

Unfortunately, the sample minimum could also be considered an outlier and might have to be discarded from the data analysis. If the sample minimum is discarded from the sample population, the new calculated value for the sample mean is 0.0533 mg/l. This value does exceed the standard for lead.

Table 18-3 - Sample Minimum Considered As An Outlier

Sample Number	Concentration (mg/l)
*	*
2	.048
3	.049
4	.045
5	.049
6	.054
7	.052
8	.048
9	.080
10	.055

Sample mean = 0.0533 mg/l

Manipulation of the data in the examples has produced at least three contradictory results. The appropriate method for statistical analysis should be selected by the inspector after discussions with the program staff. Generally, procedures for statistical analysis have been determined on a program-specific basis and should be followed when available. If there is some question as to whether or not the case of a procedure is appropriate, interaction with the laboratory staff can help to determine the most correct method.

CHAPTER 19

ENFORCEMENT PROCEEDINGS

While not every inspection leads to a formal enforcement proceeding, inspectors must always be aware that they may someday be called upon to testify about what they did or observed. The procedures for documenting the various types of evidence discussed throughout this text are designed to assure that the inspector is prepared for that day. The civil and judicial litigation process is discussed in detail in Chapter 6. Chapter 19A explains preparing for and appearing as a witness in such a legal proceeding. Because inspectors are often part of the team involved in negotiating settlements of enforcement cases, Chapter 19B provides techniques for negotiating effectively.

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19A APPEARING AS A WITNESS

Every inspector, at one time or another, is likely to be called upon to provide sworn testimony in an enforcement case. In the role of the witness in a civil or criminal enforcement proceeding, the inspector will be seeking to provide testimony to support the government's case (for example, a violation did occur, the defendant is the violator, and the evidence offered proves it). An inspector may also be subpoenaed for a deposition by the opposing side in advance of a trial or hearing as a means of finding out more about what information the government has. When being deposed, the inspector answers the questions posed, but should not volunteer "extra" information not directly asked for since that could unduly aid the opposing side's case preparation.

Serving as a witness is a difficult process, particularly the first time. Everyone has seen instances in movies or television programs where a skillful opposing attorney was able to trap an unsuspecting witness into contradictory statements hurting the witness's credibility. Or a witness, under friendly questioning, inadvertently reveals something helpful to the other side's case that is seized upon by the opposing attorney and used to his or her side's advantage.

The purpose of this unit is to provide an understanding of what it means to be a witness (or to be deposed), and to help the inspector prepare for when the time comes to act in that role. While the unit is primarily oriented toward civil administrative and judicial proceedings, its principles are equally useful for witnesses in criminal cases.

Federal Rules Governing Witnesses

The Federal Rules of Evidence and Federal Rules of Civil Procedures govern the conduct of any Federal civil proceeding. (While there may be some variations in State courts under State laws, the principles will be comparable.)

Key rules related to witnesses in civil proceedings are summarized below. An inspector seeking additional details or wishing to obtain a copy of the Rules in full should consult with attorneys in the Regional counsel's office or, if in Headquarters, the Office of Enforcement and Compliance Monitoring.

Definition of Witness

A witness is a person who gives testimony at a trial. The witness must testify from personal knowledge (Rule 602) and must give the testimony under oath or affirmation (Rule 603).

Type of Witnesses

There are four basic types of witness, as shown below. The rules of civil procedure govern whether the information of each of these types of witnesses can be protected from discovery, and whether what they have to say or introduce into evidence is admissible.

- The Consultant. A consultant can be protected from discovery if he or she is the behind-the-scenes coordinator of all of the other action in the case (Rule 26(b)(4) of FRCP).

- Expert Witness. An expert witness is one who has scientific, technical, or other specialized knowledge that would aid the trier of fact (judge or jury) to understand the evidence or determine a fact at issue. An expert witness can testify about facts, provide opinions based on facts not in evidence, and even present an opinion on the ultimate issue of the case (Rules 702, 704). Although not typically directly related to the performance of an inspection, an inspector with a particular expertise (e.g., toxicology, hydrogeology) might be called on to serve as an expert witness in an enforcement case.

- Client or Policy-Maker. The client or policy-maker for EPA cases is generally the supervisor(s) or manager(s) above the inspector (and others directly involved in the case). The knowledge such individuals have about a case is protected from discovery under several different privileges, including: (1) the attorney-client privilege, (2) the deliberative process privilege, and (3) the work-product privilege. (For an understanding of these privileges and whether they might apply to an inspector in a particular instance, consult a Regional Counsel or Headquarters attorney.)

- Fact Witness. A fact witness testifies as to what he or she learned through the use of his or her five senses (Rules 602, 701). This is the usual role for an inspector. Under the Rules of Evidence, a "foundation" must be laid prior to the inspector's testimony (See Chapter 8).

Competency

Mental or moral conditions (e.g., infancy, intoxication, mental illness) do not automatically make a witness incompetent. The trial judge makes a determination as to witness competency on a case-by-case basis (Rule 104(a)). The only persons automatically excluded as a competent witness are the presiding trial judge (Rule 605), or a jury member (Rule 606).

Credibility

The credibility -- or worthiness of belief -- of the witness, is determined by the trier of fact (jury, or judge if there is no jury). Credibility should not be confused with a witness' competency to testify. Competency is determined by the judge, and credibility only becomes a factor when the person is allowed to take the stand. After a witness takes the stand and testifies, it is the trier of fact who determines how much weight to give to the testimony.

Impeachment

A principal tactic used by trial attorneys is to call into question the credibility of witness of the opposing side. The purpose of "impeachment" is to reduce or lessen the likelihood that the trier of fact (judge or jury) will believe the witness' testimony.

There are no "motions to impeach" that can be offered by opposing attorneys, nor is there any formal impeachment process. Rather, impeachment only occurs in the mind of the trier of fact. It is the result of bringing out facts during cross-examination of the witnesses, or direct examination of other witnesses, that tend to call into question the witness' credibility.

The Federal Rules of Evidence cover only a few of the bases for impeachment; others have developed from common law as interpreted by the Federal Courts. The principal bases of impeachment are:

- Biases or interest (e.g., family relationship, friendship, obligations, employments, debtor-creditor relationships, etc.)
- Lack of opportunity to perceive (e.g., distance too great to observe the event).
- Inability to recollect (e.g., poor memory of specific details that cannot be refreshed because of incomplete notes and records).
- False testimony (e.g., the witness testifies that he or she followed standard procedure, but records are produced showing otherwise).
- Corruption or likelihood of false testimony (e.g., acceptance of bribe, expression of willingness to give false testimony, subornation of perjury, etc.)
- Mental or physical incapacity, but not amounting to incompetency (e.g., drunkenness, poor vision, poor hearing).

Hearsay Evidence

"Hearsay" is an out of court statement offered in court for the truth of the matter asserted.

The common perception is that "hearsay" evidence is not admissible in court. This perception generally arises from the complexity of both what is and is not "hearsay," and the exceptions under which "hearsay" evidence can become admissible. In general, the inspector should know the following key points:

- A verbal statement made to the witness by the defendant, or by his representatives or employees, usually is admissible.
- Business records, written statements, and official reports made by someone other than the witness are technically "hearsay," but generally are admissible to the extent, and under the same exceptions to the hearsay rule, as oral statements.

Depositions

One method used by the opposing side to obtain additional information about the Government's case is to subpoena a key witness, such as a inspector, for a deposition. A deposition is taken under oath and is "on the record" for the case; a deposition may even substitute for live testimony at the trial in some circumstances.

When testifying in a trial setting, the inspector will usually be brought to the witness stand by his or her side's attorneys and undergo "friendly" questioning, at least during direct examination. At the deposition, by contrast, the inspector is appearing in response to the other side's subpoena, and most of the questioning will be done by the other side's attorneys in either a direct or cross-examination mode. If the other side's attorneys are good and do their job well, their questions will be very much like direct examination questions which do not imply the answer, but rather dig for information.

While the inspector must be honest and complete in answering questions at the deposition, it is not the inspector's job to tell the story; the other side is responsible for trying to pull it out. As with all examinations, but especially important during deposition, the inspector should not volunteer information. In short, the inspector should not do the job of the other side's attorneys.

Receipt of a Subpoena for a Deposition

If an inspector receives a subpoena for a deposition, he or she should contact the appropriate attorney in the Regional Counsel's office as soon as possible. This is essential because the time frame between the serving of the subpoena and the date of the deposition generally is short, and time is important in either preparing for the deposition or attempting to quash the subpoena.

There are several bases on which the subpoena can be squashed, including improper service or non-compliance with the Touhy regulation, codified at 40 CFR Part 2. The object of the regulation is to enable EPA to avoid having its employees brought in by private litigants to act as fact witnesses or experts where EPA is not a party to the action and the public interest does not outweigh the cost to EPA of providing such witnesses. If there is a basis on which to squash the subpoena, the Regional Counsel's office will attempt to do so. If not, then the inspector and the Regional Counsel's office must prepare for the deposition.

Preparation for the Deposition

Preparation for the deposition is key. Not only must the inspector review all of the documentation relevant to his or her testimony, and, if required by the subpoena, compile and produce such documentation, but the inspector must also plan how to respond to the questions that the other side is likely to ask. It is particularly important that the inspector and his or her attorney discuss how the inspector is to deal with the more difficult concepts of the testimony.

In addition, the inspector and the attorney should decide how exhibits, maps, and photographs are to be handled at the deposition. If they are to be used to aid in the inspector's testimony, or are required by the subpoena, they should be put in order in advance to avoid time-consuming searches during the deposition.

Setting for the Deposition

The physical setting for a deposition is vastly different from that of the courtroom. Generally, the deposition is taken at the office of the opposing counsel. Participants include the inspector's attorney(s), the attorney(s) for the other side, a court reporter, and, if appropriate, fact or expert witnesses for the other side.

No judge is present at the deposition. The attorneys must comply with the Rules of Civil Procedure regarding the timing and scope of the deposition, but a judge will have no part unless one side is abusing the process and the other side seeks relief from the court.

Giving the Deposition

The most important thing for the inspector to remember is that the objective of the deposition is to obtain information on the record. By virtue of the fact that the inspector will be asked to take an oath, whatever is said is in the record for the case (and other cases as well where the information provided in the deposition is pertinent).

Not only does the deposition put the inspector on the record, but the deposition may even substitute for live testimony under appropriate circumstances pursuant to Rule 32 of the Rules of Civil Procedure. Further, either by stipulation or court order, the deposition may even be recorded on video cassette. These possibilities underscore still more the importance of the deposition.

The inspector should be sensitive to such considerations as the clarity of his or her testimony and the speed of delivery. The usual process is for the court reporter to take down the information phonetically in the standardized court reporting system, and then dictate these phonetic notes onto a tape which is later transcribed.

- The inspector must be careful with technical terms and numbers so that PCV vs. PCB, or thousands vs. thousandths, come through clearly to the reporter.
- If possible, the inspector should provide a glossary of technical terms to the reporter in advance of the deposition.

There are many interruptions that can occur during a deposition. Particularly, attorneys for the two sides can become involved in debates over various aspects of the deposition. When interruptions occur, the inspector should say nothing more until instructed to proceed by his or her attorney.

The inspector should be sensitive to the "eye of the record," and understand that body language and gestures can become as much a part of the record as what he or she says. The attorney for the other side merely has to say "the witness laughed before answering the last question," or "the witness conferred with counsel before answering the last question," and those incidents are on the record.

In referring to exhibits or photographs, the inspector should say: "In the upper right-hand corner we see...," rather than "Here we see...." When a reference is not verbally clear, one of the attorneys typically will interrupt to explain for the record what it is that the inspector is holding, or what portion of the document he or she is talking about. If this happens frequently, the transcript becomes difficult to read. The inspector should always keep in mind that the record will be read by someone else who is trying to understand the information transcribed onto the printed page.

Another important concept to remember is that a witness is never "off the record" until the witness and his or her attorney are out of the building and away from the deposition setting. Inspectors should not discuss the subject of the deposition with anyone during breaks (except his or her attorney in private surroundings), and particularly not with, or in hearing range of, the attorney for the other side. Those off-hand discussions can be placed on the record merely by the attorney for the other side asking the question "Isn't it a fact that in the hallway during the break you said ...." At this point the matter is "on the record," and a whole line of questioning will ensue.

As required by deposition rules, the witness has the opportunity to read a transcript of his or her deposition and sign it. An inspector should never waive the reading of the transcript. If mistakes are not corrected at this point in the process, the inspector's words stand as they appear on the written page. This becomes especially important if the matter goes further, and testimony is solicited at trial which is inconsistent with what the inspector has said at the deposition, or if the deposition is used in lieu of the inspector's live testimony.

In sum, preparation is essential to a successful deposition. If the attorney does not request the time to prepare, the inspector should. Without adequate preparation, a deposition often can go poorly, and the case can be damaged as a result.

Testifying in an Enforcement Proceeding

The objective of testimony is to persuade. Key to the ability to persuade is to be prepared and effective on the witness stand. The following sections describe in detail the elements of preparation and effectiveness that will help the inspector be a persuasive witness.

Preparing for Testimony

- Initial Inspection Activity. Preparation for testimony begins the moment the inspector begins planning the inspection. From that first day, everything that an inspector sees, hears, reviews, samples, records, and reports is potential evidence in an enforcement action. All of these comprise the ingredients of the inspector's direct testimony.

- Inspector/Attorney Consultation. The inspector and his or her attorney must spend considerable time preparing for testimony. The major purposes are to:

  - Review the inspector's evidence and prepare testimony within the theory of the case;

  - Get to know each other and how each thinks and operates most effectively;

  - Prepare the inspector for what to expect on the stand, particularly from the opposing side's attorneys; and

  - To instruct the attorney on technical aspects of case.

  Generally, the Regional Counsel will ask the inspector to review all of the inspector's material before the first meeting, and to begin putting it in order. The attorney will also review the material before the meeting.

At the meeting, the attorney usually will ask the inspector to describe his or her involvement in the case in his or her own words. The purpose is to give the attorney an understanding of the inspector's role and knowledgeability, and a sense of the verbal style with which the inspector is most comfortable. Following that, the attorney will ask specific questions about the case in order to begin organizing the inspector's direct testimony.

Also during the preparation stage, the attorney should discuss with the inspector the need to be accurate and understood on the stand. Given the scientific complexity of most cases, this often is not easy, particularly where the judge or jury is not knowledgeable in the technical issues of the case. Throughout testimony there must be a conscious effort to strike a balance between scientific accuracy and being understood. It does little good if, in being absolutely accurate, the witness loses the judge or jury in the complexity of technical detail. However, it also does little good if, in trying to reduce scientific issues to simple terms, necessary details and distinctions are omitted.

- Exhibits and Graphics. Exhibits and graphics can help the inspector remember what is to be said. They also are extremely effective for recreating in the courtroom what happened on the site in question, and for leaving with the judge or jury a visible representation of the most important aspects of the inspector's testimony. If an enlarged exhibit or photograph is used, the inspector should be prepared to walk over to it at the appropriate point and continue testifying from there. Doing this serves not only to increase the effectiveness of exhibits and photographs, but also helps the inspector reduce any stress that may have been building up. As discussed in connection with depositions, it is important for the inspector to remember to specifically identify the portion of the exhibit or photograph pertinent to what he or she is saying. Failure to be specific will require the inspector's attorney to interrupt and "ask the record to reflect...."

- Physical Preparation and Dress. Testifying can be tiring, both mentally and physically. The inspector should go about his or her normal routine, especially involving physical exercise, but should also get a good night's sleep and be clear-headed. Dress considerations should be discussed with the attorney, and his or her advice followed.

Direct Examination

The purpose of direct examination is to put the inspector's testimony on the record in the manner agreed beforehand by the inspector and his or her attorney. Direct examination is "friendly" questioning by the inspector's attorney, designed to smoothly and effectively lead the inspector through his or her testimony.

- General Considerations. The most important thing for an inspector to remember is to listen to the question, which will be short and concise. The inspector should pause before answering, and then respond with a concise answer that does not volunteer information.

  The inspector should keep in mind throughout testimony that it is not necessary to remember everything that is to be covered on the stand. The inspector's job is to know the answers to the questions; the attorney's job is to ask the right questions to elicit what the inspector has to say, and ensure that nothing important is omitted.

  - If the preparation has been thorough, the attorney should be able to lead the inspector through his or her entire testimony with a well-organized, logical recitation of the facts.

  - The inspector should keep in mind that if he or she can't remember the answer to a question, the attorney will refresh the inspector's recollection with such documents as the inspector's notes, reports, or deposition.

Eye contact with the judge or jury is important to the objective of testimony, i.e., to persuade. Failure to make eye contact reduces the ability to persuade.

The inspector should be sensitive to the rhythm of the examination. In testimony, through the short questions and the short answers, a rhythm develops; a story emerges. Attorneys for the other side, through objections, may try to break that rhythm. The inspector should be ready for those breaks, and try to pick up right where he or she and the attorney left off, quickly re-establishing that rhythm.

Testimony should be objective and straight-forward. Bias or strong emotional attachment to the case can be damaging. As a government witness, it is particularly important that the inspector present himself or herself as someone whose job it is to ferret out this sort of information, preserve it, and later present it to a judge or jury if necessary.

- Conveying the image that "I'm just here doing my job" is important.

- This is not to say that the inspector's genuine concern cannot be displayed, but the inspector must be careful not to appear so personally involved in the case that issues of stretching the evidence or other questions of credibility arise.

- Style of Questioning. A good direct examination merely introduces the subject areas, and then through short questions elicits the evidence that the witness has to offer. The attorney must phrase these questions so as not to suggest the answers. The questions are very much along the line of: "What is the first thing that you did?"; "What did you do next?"; "Who did you speak to?"; "What did he say?"; etc. If necessary, there will be follow-up questions, such as "Did he say anything else?" These types of questions are designed not only to enable succinct answers, but also to reveal the whole story through a logical progression.

- Key Words and Signals. The attorney usually will discuss with the inspector before the trial the key words that the attorney will use to suggest the subject areas of the inquiry. While the attorney cannot on direct examination ask questions which suggest the answer or require a "yes" or "no" response, he or she can legitimately direct the inspector's attention using key words. In addition, the attorney should discuss the signals that he or she may use if the testimony gets into trouble.

  For example, the attorney may tell the inspector that if ever he or she asks the question "Is there anything else?", this means that something has been left out of the testimony and the inspector needs to say it. The inspector should not quickly respond "no." Instead, the inspector should think about what it is that hasn't been covered and then provide it. If the inspector can't remember what has been left out, the attorney may risk an objection by asking the question in an improper way. If the attorney does that, the inspector needs to listen carefully; in the improper question will be the key words which should focus the inspector on what it is that hasn't been covered. The key words and signals are worked out in advance so that the rhythm of testimony is maintained, and neither the witness nor the attorney appears to be stretching the rules.

- Initial Questioning. The first few questions are along the lines of: "What is your name? What is your occupation? How long have you been so employed?", etc. The point of these first question is to give the inspector a few minutes to become comfortable with the surroundings, observe who else is in the room, and become aware of how loudly he or she is speaking. Only when the attorney senses that the inspector is ready to proceed will the attorney move into further questioning.

If the witness is an "expert" witness, his or her resume is introduced, or a detailed inquiry about his or her qualifications is undertaken. Rule 702 requires that the witness' knowledge, skill, experience, training, or education be explored prior to a determination that he or she is qualified as an expert to provide such testimony in a particular case. An inspector may be called as an expert witness; an expert is not necessarily someone from outside the agency who has particular academic or research credentials. For example, an expert could be someone who has special expertise or knowledge as it relates to taking samples from a transformer, or samples from a stream for determining turbidity (providing, of course, that the area of expertise is relevant to the case). An expert also may be someone who has been the case reviewer, and is familiar with the application of the penalty policy in a way that no one else is.

- Second Line of Questioning. The second line of inquiry, after establishing the witness' qualifications, addresses the witness' participation in the case. This is the laying of the "foundation" as discussed previously in this manual. For a fact witness, the questioning generally is a chronological, step-by-step process, establishing for the judge or jury what the witness did. It usually begins with questions regarding when the individual got involved in the case, the first things that he or she did, what happened when he or she initially arrived at the facility, etc., and proceeds from there. In certain instances, it may be more appropriate to sort out the participation in the case according to subject matter. For a straight-forward fact witness, however, the chronological approach usually is the most effective. These matters usually are discussed and decided by the attorney and inspector during trial preparation.

As the fact witness is asked to describe what happened in the case, the attorney should be providing exhibits as needed, and should not take a stack of documents or notes to the stand; a volume of paper can be distracting to the witness and difficult to handle. In addition, documents and notes taken to the stand by the witness are immediately discoverable by the other side prior to cross-examination. Experts generally take paperwork to the stand, but they must have the papers so organized that they are not searching for what they need during their testimony. An appearance of disorganization can be fatal to a witness' testimony.

Particularly with regard to the testimony of an expert witness, there is a hierarchy of type of evidence as the testimony builds to the opinion, which may even address the ultimate issue of the case. Rule 704 allows experts to give such opinions on the ultimate issue. At the bottom of the pyramid are the assumptions, facts, and data that the expert is relying on in any given case. For each of these, where appropriate, the expert must know the methodologies used and the QA/QC procedures followed, and must be able to speak to the reasonableness and creditability of these methodologies and procedures. The next step for the opinion is the expert's analysis of the facts and data on which he or she is relying. Finally, at the top of the pyramid is the expert's opinion. Usually, it is a matter of circumstance or the attorney's preference whether to start at the base of the pyramid and work up to the opinion, or start with the opinion and then establish its basis.

Finally, the witness must have enough trust in his or her attorney to know that if areas are not followed-up, either in direct examination, or in the redirect examination that follows cross-examination, the attorney probably has made a conscious decision not to do so. Only in rare circumstances, when the witness absolutely knows that the attorney has missed something important, should the witness attempt to slip the necessary information in somewhere during the questioning. Ideally, it is better to discuss these matters with the attorney before raising them, even if only for a minute during a break in the proceedings. If no break conveniently occurs, the witness should consider suggesting one.

- Staying Within Limits of Expertise and Knowledge. True for any witness, but especially the expert, is that the witness should stay within his or her limits of expertise and knowledge. If preparation has been thorough, the witness' attorney should know how far the witness can go. However, if the witness feels that his or her limits are being stretched, the witness should not feel compelled to go farther, even at the hands of his or her own attorney. It is when the witness goes beyond his or her comfortable limits that opportunities for an effective cross-examination are opened up.

- Handling Weaknesses in Testimony. In practically every instance, there will be a weakness in the government's case, and strength in the defendant's case, that must be dealt with in some manner.

  An inspector should inform his or her attorney of any problem in the case as early as possible. The attorney will not want to be surprised at deposition, and particularly will not want to hear something for the first time at trial. Advance notice is essential to enable the attorney to decide whether to bring the problem out in direct examination, how to bring it out, how to compensate for it through other testimony if necessary, and how to deal with it if the opposing attorneys try to seize on it to their advantage.

  Similarly, the inspector should give some thought to the other side's case early in trial preparation. To the extent that the government can diminish the effectiveness of the other side's case through its own case, the better its chance of winning. Therefore, government attorneys need to know the strengths of the other side's case, and what the other side likely will put into issue at trial, so that they can offset or address these strengths and issues through the government's own witnesses.

Cross Examination

The purpose of cross-examination is to give each side the opportunity to diminish the strengths, and amplify the weaknesses, in the testimony of the other side's witness through questions put directly to the witness. This often can be an arduous process. However, if the witness has handled direct examination effectively and knows what to expect, cross-examination not only can be survived, but can be turned to the advantage of the witness' direct testimony.

- General Considerations. Cross-examination is a skill that is difficult to master. Many attorneys inquire far too much, and generally just elicit the same information that has been provided through direct examination. The inspector should not be surprised if he or she is given an opportunity to say again what he or she said during direct examination, and should be prepared to take advantage of the opportunity to say it still more effectively. On the other hand, there are attorneys who know how to go for the throat, or set up what they need for closing argument. These are the attorneys that present the greatest challenge for the inspector. However, if the inspector has done his or her job well from the beginning of the case, and remains poised and consistent, even cross-examination at the hands of these types of attorneys can do little harm.

A witness must leave the adversarial work to the attorneys. During cross-examination, the inspector should continually appear to be the neutral, detached, unbiased government witness. When a witness begins to advocate the case, or gets into a debate with the attorney for the other side, the other side usually wins points. Adversarial work is truly done by the attorneys during closing arguments. At that time, the attorney will be able to take whatever was said and happened during direct and cross-examination of the witness, discuss it, and argue it with no opportunity for the witness to say anything more.

The inspector should not try to outdo the opposing attorney on technical issues. Not only may the inspector confuse the judge or jury in the process, but the opposing attorney may be an "expert" on the matter. A good attorney will become familiar with the subject at hand before trial, and may know much more about such things as sampling techniques and column temperatures of the gas chromatograph than the inspector may expect.

- Witness Demeanor. The Demeanor of the witness during cross-examination is extremely important. If the opposing attorney is being combative or offensive, the inspector should not retaliate in kind, but realize that the attorney is only doing a disservice to his or her case. Judges and juries tend to sympathize with a witness who is being dealt this sort of punishment. If the opposing attorney becomes belligerent, or matters seem to be getting out of hand, the inspector's own attorney will raise objections.

- Focus of Cross-Examination. Most cross-examination will focus on: (1) the inspector's past experiences, including his or her occupation, associations, education, and training; (2) the inspector's observations, memory, and accuracy of recollection; and (3) any motive, bias, or prejudice that the inspector may have. Good preparation by the litigation team will address these areas to determine whether there is room for successful cross-examination by the other side.

  With regard to expert witness testimony, cross-examination generally will focus on the assumption, facts and data that support the expert's opinion. Rarely can an attorney get an expert to change his or her opinion; the hope usually is that the attorney will be able to undermine the foundation of the opinion enough that he or she can argue the worth of the opinion during closing arguments.

- Style of Questioning. Cross-examination questions generally suggest the answer, and attempt to lock the witness into a "yes" or "no" response. They are often compound questions, and the inspector must listen closely to see whether a simple "yes" or "no" will suffice. If a "yes" or "no" answer is not possible, the inspector should say so.

  Further, the inspector may get cut off when he or she is saying something that goes beyond what the opposing attorney wants to hear. The inspector should not be concerned if this happens; there is redirect examination which provides the opportunity for the witness's attorney to follow-up on any of the cross-examination questions that need to be expanded upon or clarified.

- Dealing with Cross-Examination. During cross-examination, the opposing attorney usually will attempt to undermine the witness' poise and confidence. The advice given with regard to direct examination generally applies here: (1) Listen carefully to the question, pause, and answer succinctly; (2) don't volunteer any information that is not required by the question; (3) listen for inaccuracies and correct them before answering; and (4) refresh recollection through documents rather than respond with an inaccurate or wrong answer.

  If an inspector does not understand a question, he or she should say so and ask that it be read back or rephrased. The most under-utilized answer by witnesses on cross-examination is "I don't understand." Such an admission rarely is damaging, and it often can be used to the witness' advantage. For example, if the opposing attorney uses a term that is ambiguous or complex, the inspector can say: "I don't understand the term (x) that you just used. What do you mean by it?" When the opposing attorney describes the term as he or she means it, then the inspector will understand the context within which to formulate an answer. However, if the opposing attorney does not know what the term means and has to go searching for a definition, the opposing attorney's lack of knowledge is exposed. Similarly, if the opposing attorney improperly defines the term, the inspector can correct the definition, thereby not only demonstrating the attorney's lack of knowledge, but also further establishing the inspector's credentials as a knowledgeable witness.

  The inspector should be prepared for questions such as: "Did you talk with your attorney prior to this questioning?" This question usually means that the opposing attorney wants to try to establish that the inspector has been told or improperly coached as to what to say, and that the inspector's statements are not his or her own true account. The answer has to be "yes," because the inspector and his or her attorney have talked in preparation for the trial. This may lead to further questions such as: "Did your attorney tell you what to say?, or "Were you coached as to what to say?" Here, the answer should be "Yes, the truth" and "we went over my testimony" or "we discussed the details of my testimony in order to ensure that it would be accurate and concise." The opposing attorney may not let the inspector get to the "but" part. If this happens, the inspector's own attorney will bring it out in redirect examination if necessary. How to deal with these questions is something that the inspector and his or her attorney generally will have discussed during trial preparation.

  The inspector also should be alert to "why" questions during cross-examination. A good attorney will not ask "why" (e.g., why an inspector did or did not do something) except in belief that the response will be helpful to the attorney's case. If the inspector is prepared and has a good reason "why," this kind of question creates an opportunity to respond with as much detail as necessary to completely answer the question. The inspector's response often can eliminate whatever advantage the other side may have had on the point.

  There may be circumstances where an inspector needs to leave a way out of a possible trap in responding to a question. For example, if the inspector is asked if he or she followed standard procedures in taking a sample, and the inspector believes that he or she did but cannot document it, an absolute "yes" answer would not be appropriate (the inspector may not have followed standard procedures, and the other side may have evidence of that fact). The best answer in this instance would be along the lines of "As best I recall, I did."; or "To the best of my knowledge, I did." Even if it is shown later that standard procedures were not followed, there is no penalty that can be imposed on the inspector for having a faulty memory.

Finally, the inspector must be able to recognize the friendly attorney who tries to lull the inspector into not thinking, and into answering questions without really listening to them. This sort of "buddy-buddy" attorney can be the most devastating in that it will only be in closing arguments, when the inspector can say nothing further, that the damage is revealed.

- Impeachment. Of the six major bases for impeachment listed on page 21-4, the one of most concern to the inspector is conflicting testimony. For the inspector during cross-examination, this means being confronted by the opposing attorney with prior statements made by the inspector, either on oath or not under oath, that are contrary to what the inspector is now saying on the stand. Statements are not only verbal utterances; they are also written documents such as inspection reports and depositions.

  If a witness can be impeached by the other side, the effectiveness of all the witness' testimony may be lost. This is one of the reasons that an inspector must inform his or her attorney of any problems in the case as early as possible. If the inspector has made a prior statement that will be in conflict with his or her testimony, the attorney needs to know of it in order to plan how to deal with it.

  There are two key points for inspectors to remember if confronted with a conflicting statement during cross-examination: (1) If the conflicting statement is the result of a mistake by the inspector, the mistake should be admitted; and (2) if there is some other reason for the conflicting statement, that reason should be explained (or, at least, an effort to explain it should be made).

Redirect Examination

Redirect examination is limited to the issues raised during cross-examination. Its purpose is to give the witness' own attorney an opportunity to counteract or diminish any damage that may have been done through the witness' testimony elicited by the opposing attorneys.

For example, during cross-examination, the inspector admitted in response to a question that he or she had deviated from standard sampling procedures, but the opposing attorney had not asked "why." (The attorney was content to establish on the record that there had been a deviation.) During redirect examination, the inspector's attorney can correct that problem (assuming the inspector had a good reason) simply by saying "During cross-examination, you stated that you did not follow standard procedures in taking the samples. Could you please explain to the court why you did not?" The inspector can then go into as much detail as necessary to explain his or her actions.

WITNESS GUIDELINES[1]

The following suggestions are made for prospective witnesses in order to lessen the fears and apprehensions which almost everyone has when first giving a deposition or testifying before a board, commission, hearing officer or in court. Even those who have given depositions or testified previously encounter a certain anxiety when called for a repeat performance. When a witness is properly prepared, there should be little fear. The guidelines were prepared by Region X attorneys.

Deposition Hints

Preparation

Set aside time well in advance (not the night before) to prepare your deposition. You'll want to meet with your lawyer to review the pleadings, discovery and other materials in the file. You should plan to discuss the theory of the case and how your work fits in. You might consider role playing, with your own lawyer "taking" your deposition to give you a feel for the real thing. Discuss these hints; your lawyer probably has more, or he may want to modify these.

Documents

Review them before (and bring them with you when) you meet with your lawyer. If you know what your documents say, you'll generally give a better deposition. If you examine documents while testifying, expect the opposition to ask for copies. All requests to provide materials should be made to your lawyer -- don't deal directly with the opposing side. Three-ring binders are a good way to organize your material; you can easily find and remove the materials you need without thumbing through files (looking disorganized in the process) or handing over more than you want to. Stock your binder with clean copies.

Questions

Pause before answering -- it gives you time to think about the question, makes your response seem more considered and deliberate, and it gives your lawyer time to think and object if he wants to.

Listen to objections -- your lawyer may be trying to tell you something. If your lawyer "objects to the form of the question," you are still required to answer but often an appropriate answer is "I don't understand the question--could you rephrase it?" Lawyers (usually inadvertently, but sometimes deliberately) ask vague questions.

Look for assumptions in the question -- you may or may not agree with them. Get clarification if you need it.

Explain your answers. You cannot be locked into a simple "yes" or "no" -- you have a right to explain fully if you want to.

Don't volunteer -- Don't Volunteer -- DON'T VOLUNTEER.

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[1] The material in this appendix was developed by Region X for use in its inspector training program.

Answers

Be aware of the basis of and limits to your knowledge. If you know it as a fact, say so. If it is only an estimate, an understanding, or a rumor, say so. A very good, but seldom used answer is "I do not know."

Avoid absolutes. "Always" and "never" are dangerous. When it's appropriate, qualify your responses: "to the best of my knowledge" or "at this time."

Remember that the other side is sizing you up. Be firm about what you know and think; be forthright about what you don't know.

The Cold Record

The transcript won't reveal a wink, a smile or the joking context of a remark; the record is cold and, if you're not conscious of it, unforgiving.

Take Frequent Breaks

Depositions are hard work for lawyers and court reporters, but especially so for witnesses who are not accustomed to the process. Take breaks to relieve stress, stretch your legs, get a drink, talk with your lawyer. Take as many breaks as you want -- they won't proceed without you.

Dress and Manner

Be comfortable! If you're not, your deposition will show it. Normally, you'll want to dress in your normal work clothes, but check with your lawyer on this point -- there are often good reasons to depart from this general rule.

Be firmly polite to the other side. The other side's lawyer may attack you, your work, or your opinions -- don't get drawn into a fight. Remember the Cold Record -- the other side may forget.

"Did You Talk with Your Lawyer?"

"Of course!"
"What did he or she tell you to say?"
"The truth!"

Questioning by Your Lawyer

Depending on the circumstance of the deposition, your own lawyer may ask questions of you at the end of your deposition to clarify your testimony, explain additional matters, or for some other purpose. This is a good point to discuss in advance.

Reading and Signature

After your deposition is transcribed, you'll have an opportunity to read it and make any corrections you believe are appropriate. It's extra work but well worth the effort. There are no perfect transcripts and some (especially concerning technical matters) are absolute disasters. NEVER WAIVE READING AND SIGNATURE!

Testimony Hints

It is of utmost importance that a witness be thoroughly prepared as to the subject matter of his testimony. Only a witness can recall what occurred in the field and/or laboratory and why. Since many cases are tried long after field and laboratory activities are conducted, it is imperative that adequate documentation be originally prepared in order that a witness' memory be refreshed. A thorough and detailed review of all documents is the only way prospective witnesses can be adequately prepared.

In order to assist witnesses on how they should conduct themselves, the following suggestions are given.

The witness will be required to take an oath to tell the truth. The important point is to remember that there are two ways to tell the truth -- one is halting, stumbling, hesitant manner, which makes the board member, hearing officer, judge or jury doubt that the witness is telling all the facts in a truthful way; and the other way is in a confident, straightforward manner, which inspires faith in what is being said. It is most important that the witness testify in the latter manner. To assist a witness in testifying in such a manner, a list of time-proven hints and aids are provided below.

General Instructions for a Witness

If you are to be a witness in a case involving testimony concerning the appearance of an object, place, condition, etc., try to refresh your recollection by again inspecting the object, place, condition, field notes and records, etc., before the hearing or trial. While making such inspection, close your eyes and try to picture the item and recall, if you can, the important points of your testimony. Repeat the test until you have thoroughly familiarized yourself with the features of your testimony that will be given.

Before you testify, visit a court trial or board hearing and listen to other witnesses testifying. This will make you familiar with such surroundings and help you to understand some of the things you will come up against when you testify. At least be present at the hearing of the matter in which you are to testify in sufficient time to hear other witnesses testify before you take the witness chair. This, however, may not always be possible since, on occasion, witnesses are excluded from the court room.

A good witness listens to the question and answers calmly and directly in a sincere manner. The facts should be well known so they can be communicated. Testimony in this manner applies to cross examination as well as direct examination.

Wear neat, clean clothes when you are to testify. Dress conservatively.

Do not chew gum while testifying or taking an oath. Speak clearly and do not mumble. You will not be permitted to smoke while testifying.

Direct Examination

In a discussion on administrative procedures, E. Barrett Prettyman, Retired Chief Judge, U.S. Court of Appeals for the District of Columbia, gave the following advice:

The best form of oral testimony is a series of short, accurate, and complete statements of fact. Again, it is to be emphasized that the testimony will be read by the finder of the facts, and that he will draw his findings from what he reads. Confused, discursive, incomplete statements of fact do not yield satisfactory findings.

Stand upright when taking the oath. Pay attention and say "I do" clearly. Do not slouch in the witness chair.

Do not memorize what you are going to say as a witness. If you have prepared answers to possible questions, by all means do not memorize such answers. It is, however, very important that you familiarize yourself as much as possible with the facts about which you will be called upon to testify.

During your direct examination, you may elaborate and respond more fully than is advisable on cross-examination. However, when you volunteer information, do not ramble and do not stray from the main point raised in your lawyer's question. The taking of testimony is a dialogue, not a monologue. If your testimony concerns a specialized technical area, the Court or hearing board will find it easier to understand if it is presented in the form of short answers to a logical progression of questions. In addition, by letting your lawyer control the direction of your testimony, you will avoid making remarks which are legally objectionable or tactically unwise.

Be serious at all times. Avoid laughing and talking about the case in the halls, restrooms or any place in the building where the hearing or trial is being held.

While testifying, talk to the judge, hearing officer or jury. Look at him or them most of the time, and speak frankly and openly as you would to any friend or neighbor. Do not cover your mouth with your hand. Speak clearly and loudly enough so that anyone in the hearing room or courtroom can hear you easily. At all times make certain that the reporter taking the verbatim record of your testimony is able to hear you and record what you actually say. The case will be decided entirely on the words that are finally reported as having been the testimony given at the hearing or trial. Always make sure that you give a complete statement in a complete sentence. Half statements or incomplete sentences may convey your thought in the context of the hearing, but may be unintelligible when read from the cold record many months later.

Cross-Examination

Concerning cross-examination, Judge Prettyman gives the following advice to prospective witnesses:

Don't argue. Don't fence. Don't guess. Don't make wisecracks. Don't take sides. Don't get irritated. Think first, then speak. If you do not know the answer, but have an opinion or belief on the subject based on information, say exactly that and let the hearing officer decide whether you shall or shall not give such information as you have. If a "yes" or "no" answer to a question is demanded but you think that a qualification should be made to any such answer, give the "yes" or "no" and at once request permission to explain your answer. Don't worry about the effect an answer may have. Don't worry about being bulldozed or embarrassed; counsel will protect you. If you know the answer to a question, state it as precisely and succinctly as you can. The best protection against extensive cross-examination is to be brief, absolutely accurate, and entirely calm.

The hearing officer, board member or jury wants only the facts, not hearsay, conclusions, or opinions. You usually will not be allowed to testify about what someone else has told you.

Always be polite, even to the attorney for the opposing party.

Do not be a smart aleck or cocky witness. This will lose you the respect and objectivity of the trier of the facts in the case.

Do not exaggerate or embroider your testimony.

Stop instantly when the judge, hearing officer or board member interrupts, or when the other attorney objects to what you say. Do not try to sneak your answer in.

Do not nod your head for a "yes" or "no" answer. Speak out clearly. The reporter must hear an answer to record it.

If the question is about distances or time and your answer is only an estimate, be certain that you say it is only an estimate.

Listen carefully to the question asked of you. No matter how nice the other attorney may seem on cross-examination, he may be trying to hurt you as a witness. Understand the question. Have it repeated if necessary; then give a thoughtful, considered answer. Do not give a snap answer without thinking. You cannot be rushed into answering, although, of course, it would look bad to take so much time on each question that the board member, hearing officer or jury would think that you are making up the answers.

Answer the question that is asked, not the question that you think the examiner (particularly the cross-examiner) intended to ask. The printed record shows only the question asked, not what was in the examiner's mind, and a non-responsive answer may be very detrimental to your side's case. This situation exists when the witness thinks "I know what he is after but he hasn't asked for it." Answer only what is asked.

Explain your answers if necessary. This is better than a simple "yes" or "no." Give an answer in your own words. If a question cannot be answered truthfully with a "yes" or "no," you have a right to explain the answer.

Answer directly and simply the question asked you and then stop. Never volunteer information.

If by chance your answer was wrong, correct it immediately; if your answer was not clear, clarify it immediately.

You are sworn to tell the truth. Tell it. Every material truth should be readily admitted, even if not to the advantage of the party for whom you are testifying. Do not stop to figure out whether your answer will help or hurt your side. Just answer the question to the best of your ability.

Give positive, definite answers when at all possible. Avoid saying "I think," "I believe," "in my opinion." If you do not know, say so. Do not make up an answer. You can be positive about the important things which you naturally would remember. If asked about little details which a person naturally would not remember, it is best to say that you do not remember.

Do not act nervous. Avoid mannerisms which will make it appear that you are scared, or not telling the truth or all that you know.

Above all, it is most important that you do not lose your temper. Testifying at length is tiring. It causes fatigue. You will recognize fatigue by certain symptoms: (a) tiredness, (b) crossness, (c) nervousness, (d) anger, (e) careless answers, (f) willingness to say anything or answer any question in order to leave the witness stand. When you feel these symptoms, recognize them and strive to overcome fatigue. Remember that some attorneys on cross-examination are trying to wear you out so you will lose your temper and say things that are not correct, or that will hurt you or your testimony. Do not let this happen.

If you do not want to answer a question, do not ask the judge, hearing officer or board member whether you must answer it. If it is an improper question, your attorney will object for you. If the judge, hearing officer or board member then says to answer it, do so.

Do not look at your attorney or at the judge, hearing officer or board member for help in answering a question. You are on your own.

Do not hedge or argue with the opposing attorney.

There are several questions which are known as "trick questions." That is, if you answer them the way the opposing attorney hopes you will, he can make your answer sound bad. Here are two of them:

> "Have you talked to anybody about this matter?" If you say "no," the hearing officer or board member, or a seasoned jury, will know that is not right because good lawyers always talk to the witnesses before they testify. If you say "yes," the lawyer may try to imply that you were told what to say. The best thing to say is that you have talked to Mr. (blank) - your lawyer, to the appellant, etc., and that you were just asked what the facts were. All we want you to do is simply tell the truth.
>
> "Are you getting paid to testify in this appeal?" The lawyer asking this hopes your answer will be "yes," thereby implying that you are being paid to say what your side wants you to say. Your answer should be something like "No, I am not getting paid to testify; I am only getting compensation for my time off from work, and the expense it is costing me to be here."

In addition to the above suggestions and guidelines, several additional references are available for further background:

Expert Witnesses and Environmental Litigation,
J.L. Sullivan and R.J. Roberts,
Journal of the Air Pollution Control Assoc., April 1975, Vol. 25, No. 4.

Environmental Litigation and the In-House Engineer,
F. Finn; R. C. Heidrick: K. Thompson,
Journal of the Air Pollution Control Assoc., Feb. 1977, Vol. 27, No. 2. Essentials of Cross-Examination, Leo R. Friedman, CEB 1968.

19B NEGOTIATION TECHNIQUES

The individual with a knowledge of negotiation techniques and strong negotiating skills is a highly valued member of any organization, for its means that he or she has good interpersonal as well as management skills.

The type of negotiations most commonly associated with the enforcement process are the formal negotiations that EPA conducts with violators in attempt to reach a settlement agreement in lieu of protracted litigation. In general, such negotiations cover technical issues and monetary penalties.

- Technical issues might include reaching agreement on the measures to be taken to bring the violating facility into compliance, the corrective action to be undertaken to remove any damages, how progress will be reported to and monitored by EPA, and timetables for completion of work.

- In most enforcement cases, EPA will normally propose monetary penalty amount to be assessed against the violator. The gravity-based portion of the proposed penalty is based on the established penalty policy for the particular type of violation(s) involved. The proposed penalty also includes, when appropriate, an additional amount to remove any economic gain the violator might have made by being in violation. The proposed penalty is also subject to negotiation, with EPA's position guided by Agency policy.

While the lead for enforcement negotiations usually rests with the Agency's legal staff, inspectors are often members of or provide support to EPA's negotiating team. In addition to their use in formal negotiation, inspectors will find negotiation techniques useful in many other aspects of their professional (and personal) lives. Some examples follow.

- Planning an inspection may involve negotiating to obtain necessary resources, reaching agreement with program staff and/or attorneys on a realistic scope and objectives for the inspection, and accommodating inspection team members' interests in making task assignments.

- At the site, the inspector may need to negotiate with facility officials to obtain consent for entry, work out a mutually acceptable schedule for conducting interviews with key staff, or obtain permission to use the facility's copying equipment.

- After the inspection, the inspector may need to negotiate with laboratory personnel to get an accelerated schedule for same analysis, participate in deliberations of program managers and/or attorneys regarding the appropriate enforcement action to take, and -- last but not least -- serve as a member of EPA's negotiating team pursuing a settlement.

Because of their importance to EPA's overall enforcement effort, this section focuses on formal enforcement negotiations. It also addresses the similar issues and considerations that are involved in negotiations with Potentially Responsible Parties (PRPs) in CERCLA cases.

The material in this section was adapted from material originally developed by the Environmental Law Institute (ELI), Washington, D.C., under a contract to the Office of Solid Waste; that Office has granted permission for its use in this document. It is based on discussions by EPA personnel of real-world problems they have encountered in negotiating enforcement settlements as well as on observations of practice negotiations that took place at more than a dozen negotiations training courses. A fuller text is contained in the Supplemental Resource Materials, including a discussion of the communications skills useful in negotiation.

At the end of this section, key points for conducting successful negotiations are summarized for easy reference.

Introduction to Negotiations

All of us negotiate at some level every day. Each of us brings individual experiences, strengths and weaknesses to the negotiating table. As a result, some are naturally better negotiators than others. Many would like to improve their negotiating skills. But negotiation is taught in few schools and many of the popular books on the subject contain as much hype as anything else. Indeed, can negotiation be learned? Can it be learned from reading? Can reading about negotiation serve any real purpose?

- Few Rules. "Learning" negotiation, especially from books, is complicated because there are few hard and fast rules for successful negotiation. Most of the rules and principles that do exist are discussed in this section. Despite the relative absence of negotiating principles, the negotiation process is a complex one. But much of the complexity of the process results from the infinite variety of negotiators and of situations in which negotiations take place. Each negotiation develops a life of its own from differences in the nature and number of issues to be resolved, the strengths and character of the parties represented at the negotiating table, and yes, the negotiating skills of the players at the table.

- No "Right" Settlement. Because each negotiation takes on a life of its own, no two different sets of negotiators are likely to reach the same settlement on a matter of any complexity. Indeed, EPA participants consistently reached different settlements of the same hazardous waste enforcement cases in 30 to 40 practice negotiation sessions. This suggests that there may be no "right" settlement for most negotiations. There may well be, however, ranges in the desirability of various settlements from the perspective of each side. The absence of a "right" settlement and the existence of a range of acceptable settlements may disturb the less flexible or the advocates of narrow interests. Indeed, at times there may be only one solution to a problem that EPA can accept. When the latter is the case, negotiation is irrelevant--the solution is simply non-negotiable.

- Negotiating Is Not Selling Out. While neither side to a normal negotiation ultimately settles for all it had hoped to get before the negotiation began, this is no indication that a side "sold out" on what it hoped to, but did not, achieve. It may have learned during the course of the negotiations that its original expectations were unwarranted or ill founded. It may have traded a less desired item to get a more desired item.

It may have foregone an unnecessary item to secure agreement. But it should not give up what is essential to it. What is essential to EPA is established by statute, regulation, and policy. Statutory and regulatory mandates are not negotiable by EPA enforcement personnel, and policy directives are usually not negotiable by them. Policy may be affected, however, by what is learned in a negotiation. It is not the purpose of this discussion to identify what items, laws, and policy may be non-negotiable in one negotiation or another. That, however, is one task EPA's negotiators must perform in preparing for each negotiation.

- Negotiation Is Not the Antithesis of Litigation. EPA sometimes threatens to file suit against a violator unless a negotiated settlement is reached by a certain date. To some this suggests that negotiation and litigation are mutually exclusive processes. Nothing could be further from the truth. The overwhelming majority of filed cases settle prior to a trial on the merits--and they settle through negotiation. Some aspects of the litigation process may help reach negotiated settlements, e.g., getting all the relevant facts on the table through discovery or stimulating closure on settlements by court imposed deadlines. Some things about litigation hinder negotiation, e.g., the adversarial nature of litigation. But negotiation and litigation are not two separate processes for settling a dispute. Negotiation continues after litigation commences, but it continues under different ground rules.

- Negotiation May Provide the Best Solution. In many cases negotiation has great advantages over administrative or judicial litigation or administrative fiat. It may be quicker and require devotion of less resources. It results in a solution with which both sides are happy or with which they can at least live comfortably. It enables them to devise a solution which best fits their needs and the situation at hand. And it enables EPA to use whatever leverage it may have that would be unavailable in court, e.g., the power to withhold a grant or to initiate or withhold initiation of a contractor debarment proceeding. Accordingly, EPA can gain agreement from the other side to undertake endeavors far beyond EPA's legal authorities to demand or a court's to impose. And once a solution has been agreed to, it is more likely to be complied with ungrudgingly and completely than one that is imposed without consent.

- Learning from Books and Experiences. Negotiation, like the advocacy practiced in litigation, is a process, not a science or a body of learning. Because negotiation has no rule book and success in any negotiation depends upon the dynamics of that negotiation, negotiating cannot be learned from a book, only from practice. A book can, however, assist the negotiator and improve his or her own skills in three very specific ways:

    - It can suggest a theory of negotiation, providing a conceptual framework for viewing and understanding the process and providing some order to what otherwise might appear an unstructured happening;

    - It can elucidate the few rules that do exist; and

    - It can suggest a number of techniques that are employed by experienced and successful negotiators, illuminating their usefulness and limitations.

- Establishing Trust and Managing Expectations. Establishing trust between negotiating teams is necessary before a settlement is likely to result. Settlements are basically exchanges of promises--enforcement promises in an enforcement case, but promises nonetheless. And you don't willingly exchange promises with people you don't trust. Often you don't even listen to them. It's hard to reach agreement with someone to whom you won't listen. The relevance of trust is a little different in regulatory negotiations than in many other types of negotiations. The regulator may enter into a consent decree with a person not wholly trusted to comply with it, because the regulator knows the court will enforce it. Nonetheless, both sides to a regulatory negotiation want the other side to listen to them and be influenced by their words. That is more likely to happen if they have developed trust between them.

- Creating Doubt. The key to managing expectations is to create doubt as to the viability of the others' expectations. Indeed, in many respects the job of the negotiator may be thought of as creating doubts in the minds of others as to the viability of their positions, assertions, and assumptions. This discussion focuses on where to create doubts--from the viability of agendas and negotiating logistics to assertions and proposals made during negotiating sessions. It also focuses on how to create doubts--from proper preparation to better questioning of assertions and proposals.

- Identifying All of the Negotiators. When seeking to establish trust and manage expectations, it's important to identify all of the sets of negotiators where that is necessary. A negotiating team not only negotiates with its opposite member across the table, it also negotiates with its own vertical hierarchy. Its vertical hierarchy is made up of the chain of command through which the negotiating team reports and which ultimately must be satisfied with and sign off on the team's results.

Managing Negotiations

Negotiation is a process. No process has much of a chance for successful fruition unless it is managed. Understanding that is a giant step in improving negotiating performance. Management falls largely on the negotiation team leaders for each side. But all participants must cooperate if efficient management is to be three rough categories: management of people, time, and process. Of course there is considerable overlap between these categories, but they at least help organize and present thoughts. Beyond these categories, however, is the overwhelming importance of preparation. Preparation is inherent in all three categories of tasks and may the single most important element in successful negotiation.

Preparation

Importance of Preparation

If any one element is the key to successful negotiating, it is preparation. Yet preparation is often skimped by many negotiators. EPA enforcement personnel have often complained about their lack of time to prepare for EPA negotiating sessions.

An unprepared team will rarely achieve as satisfactory a result in a negotiation as that of a prepared team. Indeed, an unprepared team can achieve a settlement so unsatisfactory that it will be or should be rejected by the team's vertical hierarchy. The team leader bears the brunt of responsibility for assuring that the team is well prepared and, if necessary, for negotiating with the vertical hierarchy for the time and resources necessary for proper preparation.

Constituting the EPA Negotiating Team

Before the team can manage or be managed, it must be constituted. The number, experience, and personalities of the team members must be suited to the negotiation at hand and the team members must be able to work together. Each major legal and technical area likely to be subject to the negotiation should be well known to at least one team member. The team should be able to draw on others, as needed, for expertise in particular, more narrow issues.

A team leader must be designated by the vertical hierarchy or agreed upon by the team. The leader need not have substantive expertise, but should be adept at process and capable of managing negotiations. Attorneys are often designated as team leaders because they are trained and are often adept at process. Others can make good team leaders as well.

Other roles needed to be filled. One team member must take complete notes during the session. It is helpful to have another be a designated listener and observer, noting not only what is said, but what reactions the spoken words elicit from members of both teams and what body language and infliction accompany the spoken word.

Preparing the Team

The preparation stage is where the basic work is done to manage the negotiating team and the vertical hierarchy. The team is chosen, the team leader and other team roles are designated, and the ground rules for team conduct (when and how to caucus, how to resolve disputes, etc.) are established. The team works with the vertical hierarchy to provide needed support, agree on the objectives of the negotiation, and establish an ongoing line of communication.

Substantive Preparation

Substantive preparation includes research to determine what facts and laws relevant to the case are known and unknown and what additional facts and laws, if any, must be known before the negotiation commences or concludes. It must be determined whether such facts will be available from the other side and, if so, whether they will be reliable, or whether they must be gathered independently. Needed additional factual or legal research must be identified, assigned, and completed. The issues to be resolved must be then identified, together with the importance of the issues to EPA and the range of resolutions to each that are acceptable to EPA. Issues on which flexibility and compromise are most easy should be identified. Finally, the strengths and weaknesses of EPA's case must be analyzed and their implications understood.

Investigating the Opposition

Next, basic intelligence needs to be done on the opposition and its negotiating team. Who is the opposition? How big is it? How well off is it financially? How is it structured? How trustworthy is it? How cooperative or litigious is it? To what pressures is it susceptible? What leverage (enforcement tools, positive incentives, etc.) do EPA and other governmental departments have over it and how can the leverage be used? Can EPA action interfere with the opposition's plans in a meaningful way (its plans to secure a loan, sell an issue of stock, consummate a merger, etc.)? What facts does it have? What facts must it make known before the negotiations can be concluded? What issues does it see and how important are they to it? What are its underlying needs, interests and assumptions? What are its expectations and how can they be lowered? What is its likely opening position? How will it react to various possible EPA demands? What are the strengths and weaknesses of its case and how can they be exploited?

Intelligence on the other side can be gathered from many places: business literature, the news media, SEC filings, EPA and other government agency records, etc. But intelligence should be gathered orally as well, particularly on the opponent's negotiators. If the opponent is well known, other EPA or Department of Justice personnel will have dealt with its representatives. The State Attorney General and personnel from other state and Federal government departments can supplement this information.

Moving Into the Negotiation

Now, and only now, is the team in the position to refine its objectives, develop a strategy to reach the objectives, and develop an opening position or offer and appropriate fall backs or alternatives. At this stage it is also ready to draft an agenda and determine what logistical arrangements best suit its interests.

Preparation With the Other Team

Preparation with the other team begins before the first negotiating session and may continue at the commencement of the session with agreement on an agenda and negotiating rules. The agenda may be both for the initial negotiating session and for subsequent meetings. It can involve setting deadlines to complete different aspects of the negotiation. The agenda is important in a number of respects. It should surface all of the issues and make it hard to raise last minute concerns. It should order the proceedings. Issues can be ordered to address more easily resolved ones initially, to build good feelings, a commitment to the process, and a momentum toward settlement.

Managing People

The main groups the team leader must manage are: his or her own team (both table team members and those who support it such as inspectors and experts), his or her vertical hierarchy (branch chiefs, division directors, etc., in the region and Headquarters from all concerned program and enforcement offices), and outside groups that may have an interest in or an influence on the outcome of the negotiation (other Federal and state agencies, elected officials, public interest groups, media). And, of course, the whole point of the exercise is to manage the other side to the negotiation.

Team Management

Team management is necessary both to get the maximum benefit from the members of the team and to assure that team members don't inadvertently interfere with the team's effectiveness. Before active negotiation with the other side begins, the team leader must:

- Assure that each team member is thoroughly prepared in his or her particular aspect of the case;
- Assure that each team member shares his or her knowledge and experience with the rest of the team;
- Lead the team in developing its strategy and tactics; and
- Establish the basic rules by which the team will govern itself during the course of the negotiations.

The task of establishing the basic rules for the team warrants special emphasis. Just as there are few rules for negotiating, there are few rules for the conduct of team members, aside from the necessity for rules, agreement to the rules by team members, and adherence to the rules. Two sets of ground rules on which the team must agree are:

- How decisions will be made within the team; and
- How communications outside the team will be handled.

Often the easiest set of rules for effective negotiation are based on the principles of decision within the team by consensus, and communications outside the team by the team leader. As teams grown accustomed to and comfortable functioning together, these principles may be varied: decisions within the team need not be by consensus in matters all agree are unimportant; different team members may be spokespeople on matters within their expertise, etc.

Team Decision Making and Dispute Resolution: Effective Caucusing

As close to anything as an absolute rule in negotiation is that the team must decide upon its course of action and resolve differences between team members internally rather than before the other side. This means doing so away from the negotiating table and out of the negotiating room. It also means agreeing on when to call caucuses just after members of the other side have made a major factual presentation, they may deduce that some of the facts they presented were unknown to you are causing you to reassess your position. This could be of great strategic or tactical value to them. If, when the team leader wants to caucus or gets a signal from a team member to caucus, he or she changes the subject under discussion in the negotiation and calls a caucus a few minutes later, the purpose of the caucus may not be evident to the other side.

Nothing distinguishes the unprepared, amateur negotiating team from prepared professionals as much as discussion between team members to resolve internal team differences at the negotiating table. That gives great advantages to the other team: it can tell who sides with it and who doesn't, who wants to settle and who doesn't, and who is prepared and who isn't. It then can orient its tactics and presentation to support its friends on the disordered team. Caucusing should be done away from the table and in another room.

Caucusing is an important tool of team management and can not be used too much. Caucuses aren't just used to avoid displaying dirty linen at the negotiating table. Their uses are many:

- To regroup after a surprise;
- To let tempers cool;
- To get information or opinions from experts not at the table; and
- To clarify negotiating authority with the vertical hierarchy.

Managing the EPA Vertical Hierarchy

Among the most difficult problems encountered by EPA negotiators were those involving their vertical hierarchies. All too often these managers were untrained and inexperienced negotiators and unwilling to devote the time and attention to performing their proper roles in negotiations. This can make it impossible for the negotiating team to perform optimally. It may be a problem the team cannot overcome. But it often can be overcome and can usually at least be improved upon with sufficient effort by the team.

Managing the vertical hierarchy also begins at the preparation stage. Initially the team leader must identify what vertical hierarchy is involved and how much of the vertical hierarchy is likely to become involved in the case in any real sense. This can be difficult in EPA where there are multiple hierarchies that may become interested in any particular matter. Settling a hazardous waste case involving surface water contamination and issues of statutory interpretation, for instance, may require concurrence from both Regional and Headquarters program offices for both RCRA and CERCLA, Regional and Headquarters personnel for Enforcement and General Counsel, and the Department of Justice. Some cases will involve the Administrator. Few negotiating team leaders will have the organizational stature to orchestrate such an unwieldy and potentially conflicting set of hierarchies. But he or she can and must identify what part of EPA's organizational structure should be involved in a case and are necessary to its resolution. The team leader can then work with his or her own superiors to get other vertical hierarchies involved productively.

The two agencies must first determine where their common ground lies and what differences they have, if any. This will help them determine how to organize themselves and who should be the lead during the negotiation or on what issue during the negotiation. It will also help them develop negotiating objectives that are mutually supportive rather than destructive.

- Players Not at the Table. There may be "phantom" players in a negotiation, players that are not directly represented at the negotiating table or in the vertical hierarchy, but who are nonetheless interested in the outcome of the negotiation and able to exert an influence on its outcome. This is particularly true with many EPA cases. the more significant or controversial the case, the more likely and more numerous these phantom players will be. They can include senators and congressmen, White House staff, other Federal departments, state agencies, special interest groups, the media, etc. Specific strategies are necessary to deal with each, but the first task is to determine who the phantom players are likely to be and the extent of the influence they can wield on the process.

  The primary management task of the negotiating team with regard to phantom players is to make sure they know they are not parties to the negotiation and cannot and will not be treated as such. If appropriate, they can be listed to for their views and be assured that their views will be carefully considered. Indeed, they may have information that will be of value to you in the negotiations. Perhaps phantom players should be assured that they will be briefed on the outcome and told how their views were considered and dealt with. But they seldom should be advised of the course of the negotiation as it develops or be consulted as decisions are made. Few shadow players will really expect more. But they will take more if they can get it. The negotiating team must know when and how to say "no" and have managed the vertical hierarchy so that it will affirm the "no."

Managing Time: The Importance of Deadlines

There is an old lawyer's saying that 90 percent of cases settle on the court house steps. The saying makes two points about the timing of negotiations: Unmanaged negotiations tend to drag on forever; and managing negotiations includes establishing and adhering to deadlines.

Establishing and adhering to deadlines is the normal method of expediting resolution of negotiations. The old lawyer's saying that 90 percent of cases settle on the court house steps is a reference to the ultimate deadline: the commencement of a trial. Good time management usually will aim to avoid this deadline and resolve disputes at a much earlier stage, before the diversion of resources to discovery and trial preparation. Setting deadlines is easy for EPA in enforcement cases because EPA controls the timing of enforcement activities: the issuance of orders, the filing of a complaint, the deposition of a company's CEO, etc. Deadlines should be set for action producing events, but for reasonable periods of time. They should be set not only for ultimate resolution of a dispute, but also for interim milestones along the way.

The vertical hierarchy must be managed in a number of respects:

- To assign the right team members;
- To agree in advance on settlement objectives
- To provide necessary resources;
- To prevent end runs to the top of the hierarchy or at least to blunt their potential disruption;
- To provide flexibility in settlement objectives as circumstances change; and
- To approve a recommended settlement.

In particular circumstances the vertical hierarchy must provide other support, e.g., to consider whether an existing general policy should be modified to accommodate a specific situation. The better the team manages the vertical hierarchy, the more likely it is to secure the vertical hierarchy's support and agreement when needed.

The vertical hierarchy is managed:

- By communication;
- By keeping it informed of developments, and
- By gaining its advanced concurrence for positions taken.

Managing the vertical hierarchy often requires more negotiation with it than with the other side. The techniques used in both sets of negotiations are much the same. The time and effort spent in internal negotiations is usually more than the time spent at the negotiating table with the other side. If this sometimes is discouraging, it may help to remember that this is one of the negotiator's basic tasks and that the same thing is probably happening on the other side.

Managing Other Players

There are two types of other players that must be managed: those at the table and those not at the table.

- Players at the Table. Often there will be two or more teams at a multi-party negotiation that share mutual interests. The normal negotiating partner of this type for EPA is a state environmental agency. When this occurs, EPA and the state may be viewed together as a loose sort of a negotiating team and managed as such. Managing this sort of effort is obviously more difficult than managing an effort that is all under one roof. But it is doubly necessary to assure that the other side does not divide and conquer the two agencies.

Management of milestones during a protracted negotiation may require considerable judgment: the threat to file a complaint if settlement is not reached on a date certain should not be slavishly adhered to if settlement is close, good progress is being made, and there is no foot-dragging on the other side. Under such circumstances, filing the complaint discourages the other side and may result in slackening the pace of negotiations, because the other side no longer has inducement for quick action and both sides must divert attention to litigation. At the same time, if deadlines routinely pass with no follow through with threatened sanctions, deadlines will soon lose their credibility and usefulness.

Managing the Process

Management of the negotiation process is important for a number of reasons. Good management can make the process efficient, moving a dispute along to quick settlement with few diversions. Good management can help the manager improve his team's position in the settlement.

Projecting Power

By appearing to manage the process, the manager is seen to have power over the process and power is important in negotiations. The side with the power should get most of what it wants.

Government usually has the most power in an enforcement negotiation. It has the power:

- To improve sanctions against corporations and responsible individuals;
- To grant, deny, or delay permits;
- To order monitoring, studies, and disclosure of information;
- To conduct endless inspections;
- To make facilities ineligible for Government contracts;
- To cause financially damaging publicity; and
- To generally make life miserable for corporate management.

Projecting power require self-confident awareness of the Government's interests and its rights and ability to protect or secure those interests. Power is projected, among other means, by managing the negotiating process.

Controlling Significant Functions

Managing the negotiation process requires recognizing management functions and seizing the initiative to perform them or assign them for performance. Many of those functions have been discussed already. They include:

- Drafting an agenda;
- Establishing the ground rules of the negotiations;
- Making initial contact with the other side;
- Making introductions and the opening statement at the first negotiating session;
- Establishing a schedule for the negotiations with deadlines;
- Appointing a team member as timekeeper;
- Designating a meeting place;
- Arranging for the logistics of the meeting; and
- Drafting the settlement papers.

Drafting settlement papers is often an important method of exerting control and increasing bargaining position. It places the burden of raising, arguing for, and justifying every change, no matter how small, on the other side. There may be reasons in particular cases not to do this. It may give the other side a false sense of confidence to be the initial drafter. The other side may have a superlative drafter who is demonstrably fair and can hasten the process along. On issues where the other side has a more thorough grasp of important facts, it may save time to have it do an initial draft of parts of an order relevant to those facts.

Selecting the Meeting Place

The selection of a meeting room can help or hinder a negotiation. It is particularly important in protracted negotiations. It should be comfortable and conducive to good communications and hard work. It should not have diversions, excessive noise, foot traffic, scenery, comfort, etc. If paperwork is to be done at the meeting, it should be close to the necessary logistical support. It should be closed to caucusing areas with telephones.

Location in EPA offices emphasizes the power of EPA as a negotiator. This can be enhanced by holding the meeting at the U.S. Attorney's office. Other consideration may be important in particular cases. Negotiations at the site of a problem may facilitate the understanding and resolution of the problem by the negotiators. Meeting on the defendant's territory may make them more comfortable and more easy to deal with. Alternating meeting between the territory of the two teams lends an aura of fairness and even handedness. If sessions are expected to last into the evening, it may be important to meet where after hours logistical support is available.

Arranging the Players

Do room arrangements contribute to the negotiating dynamics? Very definitely. Putting teams on opposite sides of a rooms puts distance between them, causes problems with hearing unless voices are raised, and is not conducive to building good working relationships between the teams. Using a round table eliminates some of the adversarial atmosphere of a negotiation and facilitates working relationships. If there are more than two teams involved, their placement can facilitate "divide and conquer" tactics by separating natural allies physically or can help co-op a team by seating it with you.

While there is no hard and fast rule as to what table shape or seating configuration is best, different arrangements will facilitate different dynamics and should therefore be considered and arranged by the meeting host in advance of the meeting. Any arrangement, of course, is subject to negotiation at the opening of the meeting.

Effective Bargaining

On some issues in a negotiation there is an objective standard to be met or against which an agreement can be judged, e.g., compliance with a regulatory requirement. There can't be much bargaining about meeting such a standard -- unless application of the standard is unclear. But the means of achieving the standard and the time involved may be open to bargaining, as are the amount of any penalty and any agreement desired by either party that is not required by law.

Negotiation may often achieve better results for EPA than litigation. One of the attractions to EPA of negotiated settlements is the ability to use leverage and/or to secure sanctions or concessions that are beyond those authorized by the statute being enforced.

Managing Expectations

The importance of properly managing expectations is most clear when the consequences of mismanaging expectations are understood. In a number of practice negotiations by EPA personnel, inexperienced negotiators often sent mixed signals to the other side. In one exercise, when one EPA negotiation team decided it needed a $50,000 penalty, its lead negotiators said to the other side in an almost apologetic voice, "We really would like to get a penalty of around $50,000." The other side took this to mean the EPA team wasn't serious about stiff penalties and had no idea of getting anything close to $50,000. It assumed that agreement could easily be reached in the $10,000 to $15,000 range, the limit to which it could agree, and went on to iron out technical matters. When penalties were finally discussed again at the end of the session, it was shocked to find EPA unyielding at $50,000. It thought EPA has misled it. One member of the team thought the EPA spokesman had acted in bad faith. No settlement was reached by the end of the session. In fact, some of the technical agreements reached earlier began to unravel.

In the normal case, the other side already has an expectation with regard to EPA's initial penalty demand even before it is made: it probably will be more than EPA is willing to settle for in the end, probably at least twice as much. Knowing this, EPA should start out with a demand at least twice as high as it is willing to accept and be adamant about it from the beginning. The other side will hope that it can cut EPA's demand in half, but it won't be sure it can because of EPA's adamant demands and justification. Indeed, it will prepare its vertical hierarchy for the bitter pill of paying close to what EPA demands. As EPA eventually lets the other side whittle away at the demand amount, the other side will be pleased with its progress, appear to its vertical hierarchy to be doing a good job, and will readily agree on a penalty amount, possible higher than EPA set as a goal for itself.

If the other side's penalty expectations can be managed by EPA negotiators, as suggested above, they can also be managed in a more general manner by EPA's enunciated policies and public pronouncements. EPA's penalty policy is a significant effort to manage penalty expectations, both in terms of the general framework by which penalty amounts will be determined and of the amounts expected to be paid. While the policy has not created the expectation that EPA always will recover the economic benefits of delayed compliance if that benefit is measured in the millions, it has created the expectation that EPA will seek and secure penalties at a significantly higher level than in the past. Negotiators may capitalize on this to manage expectations in individual negotiations. For instance, they can send a copy of the policy to the other side and request that the other side furnish in advance of the first negotiating session the figures needed to calculate the benefit of delayed compliance.

Of course penalties are not the only issue on which expectations may or should be managed. The techniques for managing expectations are similar whatever the issue involved. Such techniques, however, must be devised for the negotiation at hand. While sending the other side a copy of a relevant policy may be helpful in lowering expectation in one case, it may raise expectation in another case by alerting the other side to loopholes in the policy or to its inherent weakness.

Managing Concessions

There are a number of other management techniques that can be used to strengthen a negotiator's bargaining position. They begin with inventorying the concessions that the team can make and carefully managing when and how they are used. In general, a concession should only be made when something is gained in return. Trades don't necessarily have to be of equal value -- indeed the values of concessions are often difficult to determine and of different values to the giver and receiver. The value of a concession can often be enhanced by withholding it.

Of course, there may be time when effective management of concessions will prompt making a seemingly gratuitous concession. This often happens toward the beginning of the bargaining phase of a negotiation. It may signal the team's willingness to bargain or be flexible. It may establish good will. But even in these situations concession likely to produce the desired result? Is it the least concession that can be made to produce the result? Is the result worth the concession?

Managing Public Pronouncements

There should be only one public spokesperson for a negotiation and all inquiries must be routed to that spokesperson. If it is not the team leader, a person in the press office who has been trained in the sensitivity of enforcement n matters is often the next best choice. There must be agreement on what can and cannot be said. Often care must be taken not to give the other side information publicly that it has not been able to get in negotiations.

Is there a perfect negotiating style? Or one that is best for EPA officials? There are as many styles of negotiating as there are personalities. Nevertheless, a composite of key elements from most negotiating styles can be plotted on a spectrum from cooperative to competitive. At one end is the cooperative wimp who concedes every point. At the other is the obnoxious gunslinger who no one trusts and most people avoid. Most of us are somewhere between the two.

A study of effectiveness in attorneys' negotiating styles was conducted in Phoenix. Attorneys were asked to rank the degree of success achieved by the opposing attorney in their latest negotiation. They also ranked their opponents in over 100 characteristics which enable the researchers to place them on the spectrum of negotiating styles, from cooperative to aggressive. Sixty-five percent of the negotiators were rated as cooperative, of which 58 percent were ranked as effective by their opponents. Only 25 percent were rated as aggressive, of which only 25 percent were ranked as effective. Thus, while cooperativeness is no guarantee of success, it may be easier to be successful in a cooperative mode than in an aggressive mode. At the same time, when the aggressive attorneys were successful, they often achieved better results for their clients than did their successful cooperative colleagues. Honest and trustworthy behavior were found to be primary characteristics of successful negotiators of both styles.

Pointers for Conducting Negotiations

Before the Negotiation

- Constitute the negotiation team, make role assignments, and set ground rules for team operation.

- Know what issues are to be negotiated and the range of solutions acceptable to EPA for each; know which ones are more flexible and more readily available for compromise.

- Get a pre-agreement on EPA's positions from your vertical hierarchy.

- Be sure all the relevant facts are known.

During the Negotiation

- Find a common goal for the negotiation that both sides can agree on.
- Establish ground rules and set an agenda.
- Set deadlines or timetables for decisions.
- Present an opening position that is low enough to be plausible but high enough to be taken seriously.
- Use lists, maps, and other physical demonstrations to explain, persuade.
- Gauge the chance your (current) proposal has in light of the opponent's present thinking -- the "presently perceived choice." What would need to change to get them to say yes?

  -- Rephrase the proposal
  -- Propose it to someone else
  -- See if you can make their negative reaction less so
  -- If they can say no now, construct a fading opportunity

- Ask why something is desired; understanding the opponent's interests -- and your own more clearly -- opens up the discussion and can lead to an expanded range of alternatives.
- Remember that nothing in a negotiation is "their" problem; everything is "our" problem because if you don't help them solve it, they won't help you.
- Never assume the other side sees the issues as you do. Perceptions are often more important than facts. Sell the other side through their styles of viewing the world. Formulate your arguments and statements to conform to their ways of thinking.
- Check for understanding and summarize frequently. Restate the other side's position to check your understanding, and have them do so with your position.
- Never surprise the other side.
- If you have something to give the other side, even though minor, withhold it for a while. This will make it increase in value even if the other side views it as minor. They will begin to think it has more value because you won't give it up.
- Record agreements.

- Don't start to give in too easily as agreement momentum builds. Take breaks to review goals/interests.

- Use team caucuses frequently. Never disagree internally in front of the opponent.

- Focus on deadlines. You can get better terms if you know the other side's deadlines.

- Keep information flowing to your vertical hierarchy, and keep them involved in the process. This makes them part of your team, arguing for the settlement you produce.

Counterpoints to "Hard Bargaining" or Tricky Tactics

- Slow down to avoid a too speedy closure.
- Take breaks.
- Don't counterattack when they attack.
- Ignore provocation.
- Physically move next to the person.
- Recast personal attack as one of the problems.
- Let them blow off steam.
- Agree if their anger is justified.
- Address the issue or tactic.
- Keep returning to substance.
- Refuse to respond to threats and state you only negotiate on the merits.
- Insist on principled justification of their position.
- Switch points.
- Physically move back.
- Use warnings, not threats.
- Don't resist criticism; invite it. Ask for their advice.
- Be nice.
- Break off and tell them to call you when they want to continue.
- Look for face savers for the other side.
- Create a fading opportunity for an agreement.

The Successful Negotiator

- The best negotiators are good listeners, not talkers. Listening tips:
  - -- Ask only open-ended questions.
  - -- Display attentive behavior.
  - -- Empathize.
  - -- Paraphrase to communicate your understanding of the other side's statements.
- Successful negotiators tend to:
  - Avoid things which irritate the other side.
  - Avoid counter proposals.
  - Avoid getting into the attack-defense spiral.
  - Do not dilute arguments; they give one or two strong reasons rather than many weak ones.
  - Start with reasons for disagreeing and then disagree, not vice versa.
  - Constantly seek more information than what's provided.
  - Say how they're thinking or feeling; give process information.

CHAPTER 20

PRESS AND PUBLIC RELATIONS

EPA inspectors should be aware that the public and press have a desire and a right to know about EPA enforcement activities. However, since premature release of sensitive information may jeopardize the status of an enforcement proceeding, the Agency cannot always provide unlimited access to information or fully answer all questions. This chapter presents EPA's press policy, a discussion of the inspector's role in addressing inquiries received under the Freedom of Information Act, and guidance for dealing effectively with the public. Statements to the "public" include statements made to the press, facility officials, and third parties such as citizens.

The Agency has an open, "fish bowl" approach to press and public relations which allows members of the press to contact EPA employees directly for information. However, the potential for confusion and damage to the Agency's investigation and enforcement efforts makes it essential that all public statements regarding a particular investigation be coordinated through one individual. In typical cases, this person will be the inspection team leader or a designated member of the inspection team.

When there is substantial public and press interest, special arrangements for handling inquiries may be made, such as assigning a staff person from the press office to help. In all circumstances, the reason for having one person coordinate is to assure that the Agency speaks with one voice and has knowledge of exactly what information has and has not been released publicly.

20A PRESS RELATIONS

Under EPA's open press relations policy, members of the press can contact EPA employees directly, and EPA employees are, with two exceptions, free to speak with representatives of print and electronic media. This policy encourages full disclosure of EPA activities and policies, making information readily available to the press and the public. The exceptions are that EPA employees are prohibited from disclosing: (1) confidential business information and (2) information surrounding a potential or pending criminal investigation.

The EPA maintains this open press policy for the following reasons:

- The public is entitled to know of real or suspected health dangers,
- Taxpayers deserve to be told how their tax money is being spent, and
- Information about specific activities should be supplied by the people who are most knowledgeable of those activities.

Each EPA office has its own policies and guidelines for how specific press and public inquiries should be handled by EPA staff. Inspectors should follow these guidelines as well as the direction of their program managers regarding response to requests for information. EPA's Office of Enforcement and Compliance Monitoring has developed a general press policy for publicizing enforcement activities (civil proceedings press policy) and guidelines for response to media inquiries regarding active and freshly concluded criminal enforcement cases (criminal proceedings press policy). The following sections present the Agency's policy; inspectors should also become familiar with the specific policy and practices in their organization.

Civil Proceedings Press Policy

EPA's civil proceedings press policy, "EPA Policy on Publicizing Enforcement Activities," is presented below. It is intended to improve EPA communications with the public and the regulated community regarding the goals and activities of the Agency's enforcement program.

It is the policy of EPA to use the publicity of enforcement activities as a key element of the Agency's program to deter noncompliance with the environmental laws and regulations. Publicizing Agency enforcement activities on an active and timely basis informs both the public and the regulated community about EPA's efforts to promote compliance.

Press releases should be issued for judicial and administrative enforcement actions, including settlements and successful rulings, and other significant enforcement program activities. Further, the Agency employs a range of methods of publicity such as press conferences and informal press briefings, articles, prepared statements, interviews, and appearances at seminars by knowledgeable and authorized representatives of the Agency to inform the public of these activities. The EPA will work closely with the States in developing publicity on joint enforcement activities and in supporting State enforcement efforts.

Criminal Proceedings Press Policy

The EPA's press policy in the criminal enforcement program seeks to strike a balance between providing the public with necessary information and protecting the reputations of subjects of enforcement actions to ensure that a case is not unfairly prejudiced and the right to a fair trial is protected. Further, accurate reporting of charges brought and convictions obtained in EPA criminal cases is an important component of the deterrent effect that such cases are expected to have upon unlawful conduct. EPA criminal investigations are normally handled by a Special Agent in Charge (SAIC), Resident Agent in Charge (RAIC), or a Lead Special Agent (LSA) of the National Enforcement Investigations Center (NEIC), Office of Criminal Investigations (OCI). In most cases, contact between the Agency and the public and press will be handled directly by the SAIC, RAIC, or LSA. The following paragraphs summarize agencywide press guidelines with respect to the criminal enforcement program.

General Guidelines

When Agency personnel encounter members of the media in the course of active investigative activities, they should not obstruct or prevent the media representatives from conducting their professional activities, so long as these activities are lawful and do not improperly interfere with the Agency's investigative functions. The appropriate SAIC, RAIC, LSA, or public affairs officer (after clearance with the SAIC, RAIC or LSA) may provide a brief statement concerning the nature of the investigative activity (e.g., "The Agency is involved in the execution of a search warrant"). Beyond a simple statement confirming investigative activity witnessed by the public, under ordinary circumstances no further comments should be made by any Agency personnel. Inquiries beyond these limited statements should be referred either to the local United States Attorney's Office (if a prosecutor has been assigned) or to the Environmental Crimes Unit of the Department of Justice (DOJ) for any further comment.

The SAIC or RAIC should notify the Office of Regional Counsel (ORC) before any investigative event that may generate publicity (or, in instances where pre-event secrecy must be maintained, as soon thereafter as is practicable). Throughout the course of the criminal investigation, SAICs and RAICs also are responsible for ensuring that the staff attorneys assigned to the case from the ORC and the Office of Criminal Enforcement Counsel (OCEC) are supplied with copies of relevant documents containing public information that may be necessary to respond to media inquiries (for example, applications for search warrants).

In some cases it may be advisable to notify the public of apparent health or environmental hazards which also are the subject of a criminal investigation. In these cases, designated spokespersons from the Headquarters Press Office (HPO) or Regional Office of Public Affairs (OPA) may be authorized to provide the necessary information or to tell the public that it will be notified if the health threat arises.

The media may on occasion make requests under the Freedom of Information Act (FOIA), 5 U.S.C. Section 552, which relate directly or indirectly to a criminal investigation. It is essential that any responses to such requests be made only after the concurrence of the SAIC/RAIC and the appropriate ORC attorney or criminal enforcement contact and the appropriate OCEC attorney. Failure to follow this procedure may inadvertently signal the existence of a confidential criminal investigation or might otherwise provide information which could compromise the case.

Certain information gathered by EPA under statutory powers may become subject to mandatory disclosure upon request, including a media inquiry. If a request for information that might be subject to mandatory release concerns a target of a criminal investigation, and concerns the same basic subject matter as the investigation, information may not be released without the consent of the SAIC or RAIC and the appropriate ORC and OCEC attorneys (with the consultation of DOJ as appropriate).

EPA personnel will at no time encourage or assist the media in photographing or televising an accused person, any aspect of an active investigation, or any facility involved in an Agency investigation. Moreover, the Agency will not ordinarily make available photographs of an accused. Information which is authorized to be disclosed to the media should be provided equally to all members of the media, subject to any limitations imposed by law or court order.

Any conflicting opinions among Agency personnel as to what information may be disclosed to the public or when disclosure can occur must be resolved at the Headquarters level, after Headquarters' consultation with DOJ and the Assistant Director for Criminal Investigations of NEIC.

Response to Media Inquiries

The existence or non-existence of any criminal investigation must never be confirmed, denied, nor discussed. Even to acknowledge the existence of an investigation might prejudice the rights of an individual or compromise an investigation. When asked, Agency personnel must respond: "It is Agency policy to neither confirm nor deny the existence of a criminal investigation." Of course, to be effective, this response must be utilized habitually even when it is known that no criminal investigation is planned or under way. In the event that this response proves insufficient to quell a particular inquiry, Agency personnel may direct the inquirer to the appropriate SAIC or RAIC (who will generally be much more accustomed to handling persistent inquiries), but under no circumstances may Agency personnel acknowledge the existence or nonexistence of a criminal investigation or provide any information related to it.

At any time after a DOJ prosecutor has been assigned or the case has been referred to the DOJ, EPA personnel will not respond to media inquiries or volunteer comments on the case, whether oral or written, for attribution or not, without the prior expressed approval of the DOJ, until the case is concluded absolutely. Such media inquiries will normally be forwarded to the lead prosecutor, either with the local office of the United States Attorney or the Environmental Crimes Section of the DOJ assigned to the case. If the Agency wishes to issue a DOJ-authorized media release when formal charges are made or upon the occurrence of other critical events in the prosecution, EPA will honor DOJ policy and not issue a release without the prior approval of DOJ.

In general, the Headquarters Press Office (HPO) will have the lead responsibility for preparing media releases. The OCEC or ORC attorney will assist in drafting the media release as requested by HPO. HPO is responsible for coordination with the Regional OPA and for obtaining a concurrence from OCEC (and ORC, where applicable). To be effective, it is essential that a media release be issued as contemporaneously as possible with the event it is publicizing. Therefore, it is critical that Agency personnel involved in the particular criminal enforcement proceeding provide HPO (and/or the Regional OPA) with all necessary information, as well as review and concurrence, on an expedited basis.

To ensure the accuracy of responses, and to protect against inadvertent prejudice to the rights of defendants in active cases, media inquiries should be directed to the most appropriate of the following destinations:

- Headquarters Press Office
  FTS 382-4355
  E-Mail Box EPA 1704 (Washington, DC)

- Associate Criminal Enforcement Counsel
  FTS 475-9660
  E-Mail Box EPA 2284 (Washington, DC)

- Assistant Director for Criminal Investigations
  National Enforcement Investigations Center
  FTS 776-3215
  E-Mail Box EPA 2390 (Denver, CO)

EPA Press Division

The EPA Press Division is an important channel in disseminating information about EPA and in deciding how best to release that information. The following section introduces the EPA Press Division and discusses the services it provides.

The EPA Press Division is located within the Office of External Affairs, Office of Public Affairs. It provides the media with adequate and timely information, responds to queries from the media regarding EPA program activities, and assures that EPA's policy of openness in all information matters, is honored in all respects. It provides a system for the EPA to educate citizens and respond to their concerns about environmental issues and guarantees that opportunities exist for public involvement in the resolution of problems.

The EPA Press Division provides the principal dissemination system for EPA announcements, press releases, press statements, speeches, congressional testimony, public hearing testimony, calendars of principal officers, biographies of principal officers, and other documents of interest to the press. This Division monitors nationwide media coverage of Agency activities and policies, as well as external events and developments of interests to the environmental community.

Both Headquarters and Regional Offices of the Press Division can provide assistance in the development of press releases, interviews, and statements. To make best use of their services:

- Notify them prior to issuance of a press release. The EPA Press Division holds a weekly conference call with all Regional press offices to coordinate the release of important information.

- Enlist their assistance in development of public communications. Several different alternatives to a press release may be used to disseminate the substantive information associated with a given investigation. The Press Division will assist in determining the best method of dissemination for the specific circumstances involved.

- Keep them informed of developments in public and press relations on a regular basis.

The EPA Headquarters Press Division has a press specialist for each major program office. EPA inspectors are encouraged to contact these specialists or their counterparts in EPA Regional Offices when they have questions, comments, or problems regarding public affairs and information releases.

Dealing with the Press During Field Investigations

Circumstances may arise during an inspection when inspectors may be called upon to deal with the press. When an inspector has just completed a particularly sensitive inspection or on-site investigation and is met at the plant or facility gate by a local news team, it is important to know what should and should not be said to the media. While a specific Region's press policy may differ, the following general guidelines should help inspectors through these occasions.

- What Must Voluntarily Be Made Known to the Press (Except During a Criminal Investigation)
  - Any known dangers to the public health.
  - Any information that would dispel unfounded rumors about health dangers that are circulating in the community around the site being investigated.
- What Can Be Told to the Press Voluntarily or in Response to Questions (Except During a Criminal Investigation)
  - What EPA employees are doing.
  - How EPA is doing it (e.g., sampling techniques, how the equipment works, how the lab goes about analyzing the samples).
  - Why it is being done (e.g., to protect water quality, drinking water safety).
  - Why EPA employees are being so careful (e.g., why the inspectors are wearing respirators, "moon suits," or using special equipment).
- What Can Be Said During a Criminal Investigation or During a Pending Criminal Enforcement Case
  - EPA employees should voluntarily provide information about real dangers to public health or information needed to dispel panic and fear caused by unfounded rumors of health dangers.
  - If asked by the press or public, an EPA employee may state if a search warrant has been used. Since the affidavits used to obtain the warrant are public information, they may be made available to the press.

- What Cannot Be Said During a Criminal Investigation or During a Pending Criminal Enforcement Case
  - Do not confirm, deny, or discuss the existence or non-existence of a criminal investigation.
  - Make no characterization of the investigation, other than what is said in the affidavits used to obtain the search warrant.
  - Say nothing that would infringe upon the rights of potential or actual defendants.
  - Say nothing that would compromise the integrity of the investigation.
  - Do not respond to inquiries about a pending criminal enforcement matter without the express authorization of the EPA special agent in charge or the Department of Justice official directing the investigation or persecution.

20B PUBLIC SPEAKING GUIDELINES

While most inspectors will not address large crowds (at least not as part of their inspector duties), they may make oral presentations to their inspection team prior to conducting the inspection, brief facility personnel, brief members of the press, or brief EPA managers on the inspection results. The material covered in the following sections is intended to improve the effectiveness of such presentations.

Preparation

Before speaking in public, organize your presentation. To an experienced speaker, this may mean jotting down a few notes. To a less experienced one, it may mean writing detailed notes or even a manuscript. (Preparing a manuscript takes time, but the effort can pay off by giving a nervous speaker the confidence that comes from knowing what he or she is going to say.) When speaking, try to keep your style as simple and clear as possible. Use the following suggestions to guide your writing and speaking:

- Organize the presentation in three major sections: why the presentation is being made (i.e., what is the problem?), what you have done or what you are going to do (i.e., what approach or methods were used or are going to be used?), and what you found out or plan to investigate (i.e., what are the results or the expected types of information that will be gathered?).

- The best way to break unpleasant news is swiftly and directly. Give people the toughest news first. Give them the details as openly and accurately as appropriate. Focus attention productively on solutions rather than blame.[1]

- Never use long words when short words will do. A speech writer once gave President Franklin D. Roosevelt a weak sentence: "We are endeavoring to construct a more inclusive society." FDR said the same thing much more powerfully by getting rid of the three- and four-syllable words: "We are going to make a country in which no one is left out."[2]

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[1] Margaret M. Bedrosian, Speak Like a Pro, (New York: John Wiley and Sons, Inc., 1987) p. 105.

[2] Joan Detz, How to Write and Give a Speech, (New York: St. Martin's Press, 1984), p. 50.

- Avoid jargon. You risk confusing your audience.

Jargon	Plain English
Finalize	Finish, complete
Impact (verb)	Affect
Implement	Carry out
Operationa	Working
Output	Results
Viable	Workable

- Don't speak in abbreviations. Explain every abbreviation you use, at least the first time.
- Simplify phrases.[3]

Avoid phrases like	Instead, try using
a large number of	many
a sufficient number of	enough
a total of 42	42
advance planning	planning
are in agreement with	agree
at that point in time	then
at the present time	now
bring the matter to the attention of	tell
caused damage to	damaged
check into the facts	check the facts
due to the fact that	because
estimated at about	estimated at
for the purpose of	for
have a discussion	discuss
hold a meeting	meet
in the majority of instances	most often, usually
in the area of	approximately
in connection with	on, of
in view of	because
in the event of	if
in order to	to
in many cases	often
in some cases	sometimes
in the course of	during
obtain an estimate of	estimate
of sufficient magnitude	big enough
on the basis of	from
provide assistance to	help
study in depth	study
subsequent to	after
take action	act
was in communication	talked with
with reference to	about
with the exception of	except

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[3] Ibid, p. 53.

Rehearsal

Research has shown that mentally rehearsing a presentation or performance helps improve the quality of the real thing. Even better than mental rehearsal is an actual dry run. Doing a dry run accomplishes the following:

- It uncovers holes in the material. You may discover that what you thought was valid and complete turns out to be shaky and incomplete, or that you don't fully know what you're going to say.

- It prepares for the unknown. Since most presentations are interactive, with listeners commenting and asking questions, you need to be ready for more than you are planning to cover. A good dry run can go far toward revealing questions that are likely to come up.

- It makes a smoother, more professional appearing presentation. It gets the bugs out of the mechanics of presentation. Also, your fluency will improve significantly by one or more dry runs.

Conduct your dry runs well in advance so that you have time to make revisions.[4]

Making the Presentation

Nervousness is a problem every speaker, both new and experienced, must confront. Nervousness, if focused, is a positive force. Here are some ways to help reduce nervousness to a healthy level and focus it properly:

- Prepare thoroughly. Nothing reduces anxiety more than the realization that you are well-prepared and know what you are going to say.

- Recognize that you're not alone. The fear of speaking before an audience, even a small one, is the single greatest fear of today's adults.

- Practice. Be prepared for contingencies. Think about what could possibly go wrong and prepare for it.

- Have the opening down pat. You are most nervous early in the presentation, and getting off to a good start is a great confidence builder.

- Gain experience. Experience builds confidence, which is a key to effective speaking. Most people find that their anxiety lessens each time they speak before an audience.[5]

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[4] Thomas Leech, How to Prepare, Stage and Deliver Winning Presentations, (New York: AMACOM), p. 212.

[5] Ibid, p. 223.

Effective Communication

Beware of facial expressions or body language that may be perceived as threatening and therefore may undermine your message. What is perceived as a constant sneer, glare, or frown will make receivers feel belittled or challenged. Gestures such as standing with arms folded across the chest or maintaining an aggressive posture are also seen as hostile. When delivering an unpleasant message, try to keep body language as non-threatening as possible.

Eye contact also is important. Look at people directly. Side glances and looking at people out of the corner of your eye makes the audience uncomfortable. Talk to everybody in the group. Speakers often direct their comments and eye contact almost exclusively to only a few people, often the authority figures in the group. This is generally not appreciated even by those receiving all of the attention, let alone by those left out.[6]

Fielding Questions

Listen to the entire question and make sure you understand it. A common urge is to start answering before the questioner completes the question. This often results in answering the wrong question and irritating the questioner. Instead of instantly blurting out an answer to a question, first figure out what the question is and the best way to handle it. (In other words, engage brain before mouth).

Even if you listen to the entire question, you may misinterpret it. A good idea is to repeat or restate the question before answering it. Resolve factual errors or misunderstandings quickly. Often, a question is based on facts which the questioner misunderstood or stated incorrectly. Often, the question vanishes if correct information is given.[6]

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[6] Thomas Leech, How to Prepare, Stage and Deliver Winning Presentations, (New York: AMACOM), pp. 311-313.

20C FREEDOM OF INFORMATION ACT

This section highlights the important points of the Freedom of Information Act (FOIA) as they pertain to inspections. For a detailed discussion of the FOIA, its provisions, who is responsible for fulfilling them, and how EPA should respond to FOIA requests for information, refer to the Freedom of Information Act Manual.

Under the FOIA, an individual can request any EPA record. A record may include any document, memorandum, report, photograph, sound or magnetic recording, computer tape, drawing, draft document, or handwritten notes (except personal notes). EPA may respond to a FOIA request in one of the following three ways:

- EPA may release the document,
- EPA may withhold the document, or
- EPA may withhold part of the document.

The Administrator, Deputy Administrator, Assistant Administrators, Regional Administrators, the General Counsel, the Inspector General, Associate Administrators, and heads of Headquarters staff offices have the authority to determine whether to release or withhold records from an initial request. They may delegate this authority, but only to persons occupying positions not lower than division director or equivalent. Inspectors may be asked to assist in compiling records for review prior to the decision to release or withhold them, or in preparing the records for release.

Although legitimate FOIA requests must be in writing, EPA will make a good faith attempt to respond to oral requests for records. If the orally requested record can be released under FOIA, EPA will release the record. If there is any doubt whether the record should be released, the request should be made in writing. If a request does not give enough information to identify the record, EPA will call (or write) the requestor to obtain a more specific request. If a specific request cannot be honored, EPA will notify the requestor in writing of its inability to honor the request and send a copy to the appropriate Regional FOIA office.

The FOIA only deals with requests for records, not general requests for information. If a requestor asks a specific question, EPA is not required to answer it under the FOIA unless the request is really a request for a record. The FOIA also does not apply to future records. The FOIA does not require the creation of new records in response to a request, and it does not require the Agency to put a requestor's name on a distribution list for records as they are created.

EPA must answer all written requests in a timely fashion, whether or not the request cites the Freedom of Information Act. Written requests must provide an adequate description of the records sought for EPA to identify and locate them. After receiving a written request, EPA must send a copy to the appropriate Freedom of Information Act Officer. After receiving the request, the FOIA Officer or the responsible EPA officer has 10 days to determine whether or not to release the record. Excluded from this period is any time the requestor spends giving additional information needed to identify the record, or time required to receive prepayment or assurance of payment. If the search involves unusual circumstances (see FOIA Manual, Appendix 4, page 10), EPA may take a 10 day extension. If EPA withholds a record, the requestor has 30 days to appeal.

If the records are published by the Federal government, but are not in EPA's possession, EPA will tell the requestor where the records can be obtained or transfer the responsibility for handling the request to the appropriate agency. EPA will notify the requestor of the transfer.

CHAPTER 21

COMMUNICATIONS SKILLS

Virtually every aspect of the inspector's job employs communications skills. The inspector who is adept at oral and written communication will be effective both in dealing with the regulated community and in the planning and management aspects of leading inspections.

This chapter contains brief discussions of several types of communications skills useful to inspectors. Topics include team building, effective meetings, leadership, assertiveness, time management, and stress management.

Leadership

Leadership qualities provide inspectors with the quiet confidence of an individual who is comfortable with his role and capable of exercising legitimate power -- leadership -- when called upon to do so.

An effective leader is one who uses the right amount of the right kind of power towards the right ends. Effective leaders try to:

- Make others feel strong; help them feel that they can influence their future and their environment. When people feel strong, they enjoy their work, feel personally involved, and are motivated to continue and improve work.

- Build others' trust in the leader. Effective leaders influence subordinates by making subordinates feel they are concerned and freely share their knowledge and concerns with subordinates.

- Structure cooperative rather than competitive relationships. Effective leaders motivate subordinates to work with each other to accomplish the company's objectives, rather than against each other to accomplish their own objectives. When a competition is created, invariably one party wins and one party loses. People working together are more able to accomplish their personal goals than when operating alone.

- Confront conflicts rather than run away. Effective leaders use their legitimate power to confront conflicts with their subordinates, and achieve a solution by using their expert power to problem-solve with their subordinates, rather than their power to force their solution.

- Stimulate and promote goal-oriented thinking and behavior. People work more diligently and efficiently when they have a clear idea of where they are going. However, they also need to be able to set their own goals. Effective leaders enable subordinates to participate in goal-setting, and use them legitimately to motivate subordinates to achieve those goals.

Team Building

EPA inspectors are part of a team. In the larger sense this team is made up of the EPA and other Federal, State, and local officials responsible for the enforcement of environmental laws and regulations. More specifically, EPA inspectors may work with State and local enforcement personnel in the conduct of joint inspections, oversight inspections or a review of inspection and enforcement practices. This section provides some tips for team building.

- The team leader operates on two levels: (1) leading the group in performing the task itself, in defining and solving the problem; and (2) acting as a leader when required in building and maintaining the cohesiveness of the group as a problem-solving unit.

- Roles and responsibilities, expectations, and schedules should be clearly defined and understood.

- The leader enhances group problem solving by:
  - Providing continuing feedback to group members.
  - Taking personal risks with new ideas or approaches.
  - Taking personal responsibility for his or her own actions and actions of the group.
  - Respecting and supporting group members and keeping open to their ideas.

Effective Team Meetings

Although group members must often work alone, many tasks are best accomplished in a meeting. Meetings are good for generating lots of ideas, sharing information, and making collective decisions. Meetings are not generally good for organizing information, doing detailed analysis and research, translating ideas into coherent words or drawings, and thousands of other tasks more easily done by individuals alone.

Careful preplanning can eliminate unnecessary difficulties during a meeting session. Furthermore, it reinforces the leader's confidence and frees him to concentrate during the meeting on the actual discussion. Preplanning not only ensures that the meeting time is put to the most efficient use, but it also helps foster a feeling in the group that the leader has taken a genuine interest in making the meeting a success. The leader should prepare an agenda in advance and know what should be accomplished by the close of the meeting.

Some of the functions of meeting leadership are:

- Initiating -- suggesting new approaches to a problem if discussion lags.
- Orienting -- making sure the group knows exactly where the discussion is going and why.
- Clarifying -- making sure that everything that is said and done is understood by all members of the group. Statements and actions may have to be repeated or restated before they become clear to everyone.
- Supplying information -- providing the facts that the group needs to work with.
- Integrating -- synthesizing all the facts and all the thinking of the group to come up with answers that make sense to everyone. The idea is to find the answer that combines the best points made by the entire group.
- Summarizing -- pulling together all the ideas that the group has been talking about while showing their relationship to each other and to the whole problem.

Generally, the best way to arrive at a group decision is through collaborative problem solving, a win/win method of decision-making. If consensus cannot be reached, a group can always fall back on a win/lose method like executive decision. However, it is very difficult, if not impossible, to move from a win/lose approach to a more collaborative one. Even if a group has to resort to win/lose decision-making, the experience of searching collaboratively for a win/win solution encourages group members to develop an understanding of complex issues and gain the satisfaction of having had an opportunity to participate in developing the best possible alternative.

There are several steps that a team leader can take to avoid confusion or disagreement over the outcome of a meeting, and to give participants a greater sense of having spent their time well.

- Summary of accomplishments. Restate the areas where progress has been reported so that everyone is clear on just what has been achieved.
- Planning. If there will be a series of meetings, the group should agree on a time and agenda for the next meeting and determine what follow-up activities are required. Planning will be more effective if the group is involved in it.
- Assignments. At the close of a meeting, make specific assignments for gathering further information, preparing reports, looking into alternative solutions, etc.
- Follow-up. Human memories being as fallible as they are, it is important to have a record of what action took place at the meeting. The achievement summaries serve both as a follow-up device for those who have attended the meeting and as a reference that should be kept on file for future questions.
- Self-evaluation. Privately review and evaluate what happened at the session.

Time Management

Efforts expended in managing time are investments which, if successful, have payoff in greater personal job satisfaction, increased productivity, improved interpersonal relationships, better future direction, reduced stress, and improved personal health. The following tips should aid in improving time management.

- Begin with taking stock of how your time is currently being spent. Keep track of time in blocks; track your general routine in one-half hour to one hour blocks. Identify from this the time robbers taking an inordinate amount of time.
- Make both long-term and daily plans. Establish objectives with specific due dates, and rank them in priority. Keep a "To Do" list. Concentrate on the high-priority activities.
- Schedule effectively. Block your time; set aside uninterrupted blocks for projects needing it. Be complete; work left unfinished is an insidious time robber due to the stopping and starting. Combine and group similar tasks.
- Become results-oriented, but recognize the trade-off between efficiency and perfection.
- Be flexible and plan time for breaks. Plan time also for the inevitable emergencies.
- Delegate whenever possible. Of all the managerial arts, true delegation is the most rare. Take time to train subordinates. Relinquish ownership of problems that belong to the person with the delegated responsibility.
- Break up large tasks to avoid the price of procrastination.

- Use discretionary time wisely. Get organized, act on a piece of paper only once if at all feasible, and reduce distractions and interruptions.

- Learn to say no; do not let others fritter away your time.

- Make efficient use of tidbits of time, such as waiting time in offices.

- Schedule time to relax. Mini-vacations are a strong deterrent to time anxiety. These are selected brief interludes during the course of the day to "get away from it all." Selected means that these mini-vacations should be scheduled at specific times. What one does during the five- or ten-minutes respite is up to the individual. The only restrictions are that it not be work-related, and that it be something one enjoys.

Assertiveness

Assertiveness strikes a balance between aggression and non-assertion. Assertive people do not put themselves or others down. This leads to:

- Greater self-confidence: A positive, "sound" self-regard as opposed to "boastfulness" (aggression) or "hopelessness" (non-assertion).

- Greater confidence in others: A healthy recognition of other's abilities and limitations as opposed to seeing them as "inferior" (aggression) or seeing them as "superior" (non-assertion).

- Increased self-responsibility: Take responsibility for one's own opinions, wants, and needs rather than blaming himself or herself -- "I'm sorry I made a mess of it" -- (non-assertion) or blaming other people -- "It's all your fault this has happened" -- (aggression).

- Increased self-control: Thoughts and feelings are channeled so as to produce the behavior wanted rather than being controlled by events, by other people, or by feelings.

- A saving in time and energy: Not preoccupied with not upsetting people (non-assertion) nor concerned about losing out (aggression). Decisions and choices are based on their merit (this saves time with disputes and conflict in the long run).

- An increased chance of win/win: Assertiveness increases the chances that both parties will get their needs met, their ideas and opinions considered, and their abilities used in the short and long run.

Tips for Practicing Assertive Behavior

- Trust yourself and your own feelings. Develop the capacity to listen to yourself and know your own wants and needs.
- Be in touch with the environment. Understand what other people's wants and needs are. They often explain their behavior.
- Express your ideas and feelings and encourage others to express theirs. Expect your opinions to be given the same consideration as others.
- Be straightforward. Much time and emotional energy is wasted in defending and attacking.
- Confront issues. Behaving assertively can be demanding. You must confront issues. You cannot accept "put downs" or attacks or permit yourself to be exploited. An individual who behaves assertively can and does argue, disagree, and push for results.

Stress Management

This section is provided to make EPA inspectors aware of the various forces which combine to produce stress, inhibit job performance and lower job satisfaction. Positive stress management techniques can help inspectors cope with some of the situations they typically encounter including:

- Frequent or extended travel periods
- Many hours of travel
- Deadlines
- Long or unscheduled hours
- Hazardous situations
- Life-threatening situations
- Being outnumbered
- Hostility
- Confrontations
- Staying within budget.

Although most people perceive stress as negative, it can have a positive side. It can be positive when it is related to needs like acceptance, respect, achievement, and success. Low levels of stress act as motivators, getting you revved up and giving you the extra push necessary to get the job done.

The goal of stress management is not to eliminate stress. There is no such thing as a stress-free environment. Rather, it is to relieve excessive responses to stressful situations, thus minimizing the injury they can cause to your body.

Sources of Workplace Stress

Change and Uncertainty

Although in business, change and uncertainty are accepted and anticipated, they are considered major causes of stress. Regardless of temperament and experience, even the most self-confident person will perceive stress in a new situation in which he or she has no experience.

Lack of Control Over One's Job

Also high on the list of job stress causers is lack of control over how one performs one's job. Some jobs with high psychological strain take the least toll on health. The difference is that these jobs also give employees a great deal of control. Among these jobs are architect, forester, natural scientist, dentist, skilled machinist, and auto repairman.

Office Distractions

There are an abundance of other, less major stress factors in the work environment; for example, office noise resulting from machines, excessive conversation, and office acoustics. Prolonged exposure to noise creates fatigue and agitation, and loud and uncontrolled communication between staff members creates confusion as well, and is a major cause of stress. Also stressful is office pollution created by smoking, poor maintenance, and clutter.

Reducing Stress At Work

Manage Time Wisely

- Don't put off doing a distasteful task -- accept short-term stress as opposed to long-term anxiety and discomfort.
- Negotiate realistic goals on important projects. Be prepared to propose them yourself rather than having them imposed.
- Learn to say "no" when appropriate, without feeling guilty.
- Limit interruptions.

Develop Good Relationships

- Build an effective and supportive relationship with your boss.
- Develop a supportive system with colleagues focusing on mutual support rather than airing complaints.

Develop a Positive Attitude

- Don't overcomplicate things.
- Think of the best that can happen.
- Use humor.
- Reward yourself.

Build Stress Reducers into Your Daily Routine

- Make your office area attractive and calming.
- Take a relaxation break each morning and afternoon.
- Take a "mental-health day" every two or three months.
- Leave the office for lunch and short breaks.

Reducing Stress Outside of Work

Develop and Maintain a Healthy Lifestyle

- Eat properly.
- Exercise regularly.
- Stop smoking.
- Avoid drugs and alcohol.

Learn to Relax

- Leave work behind you when you go home.
- Pursue a hobby or leisure interest for diversion.
- Get away.

Form Healthy Relationships

- Find friends who have nothing to do with your line of work.
- Avoid dwelling on your problems with people close to you.
- Help others.

Spread Major Stressful Events Over Time

Although people have different capacities to handle stress, everyone has only a finite amount of energy to adapt to stress at any particular time. Therefore, to avoid illness, one should try to spread anticipated major stressful events (e.g., marriage, divorce, home purchase, pregnancy) over time.